83d Congress
1st Session

COMMITTEE PRINT

THE NEWSPRINT PROBLEM

FINAL REPORT

OF THE

SPECIAL ANTITRUST SUBCOMMITTEE

OF THE

COMMITTEE ON THE JUDICIARY

(September 14, 1953)

Printed for the use of the Committee on the Judiciary

UNITED STATES
GOVERNMENT PRINTING OFFICE
33442 WASHINGTON : 1953

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[1] Elected to committee March 30, 1953 (H. Res. 194).

Pursuant to resolution of the Committee on the Judiciary adopted on January 27, 1953, authorizing the Special Antitrust Subcommittee (Subcommittee No. 5) to be reconstituted for the sole purpose of submitting a final report on matters pending before it during the 82d Congress, the chairman of the Committee on the Judiciary appointed the following members to carry out the purposes of the resolution: Chauncey W. Reed (Illinois), chairman; Kenneth B. Keating (New York); William M. McCulloch (Ohio); Emanuel Celler (New York); Edwin E. Willis (Louisiana); Byron G. Rogers (Colorado).

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INTRODUCTION

The present report deals with the program of the subcommittee concerning newsprint carried over from the previous Congress. The record compiled by the subcommittee in the field of newsprint will take its place among the most important accomplishments of this committee, and will constitute an invaluable source of reference material for congressional legislation for many years to come.

The subcommittee has made a most significant contribution in this field. The development of new sources of raw material for newsprint production, with particular reference to sugarcane bagasse, has stimulated interest and attracted recognition throughout the world. Great credit for the outstanding success of this work is due the Department of Commerce, particularly Mr. Jesse J. Friedman, Director of the Industrial Development Staff of that agency, whose professional ability and intelligent direction of this program from its inception have opened up an entire new industry for commercial development by private enterprise.

The subcommittee may be justly proud of the results of its accomplishments which are described in this report. The continuing work of this committee in newsprint will have a solid foundation upon which to build.

Chauncey W. Reed

Chairman.

FINAL REPORT

I. The Newsprint Problem

A. IMPORTANCE OF NEWSPRINT

A free press is the very cornerstone of our representative form of government. The founders of our country recognized that a federal republic could not prosper without certain minimum guaranties for freedom of expression and opinion. The concept of freedom to publish was not restricted to the large metropolitan dailies whose circulations now run into the millions, nor even to the small-town dailies and country weeklies which reach the grassroots areas of the country. It was designed to embrace all media of expression of free thought, including organs of religious, of labor, of political, and even of fraternal organizations. It was intended to include the expression and transmission of the many diverse ideas and viewpoints which would spring from the minds of a polyglot and diverse population.

Yet the freedom to write, to report news, to express ideas, to differ—all these become meaningless if the materials for mass communication are lacking. A newspaper cannot spread its news and editorials without newsprint any more than can an electric bulb transmit light without a filament. It is therefore readily apparent why there has been such great solicitude concerning newsprint in legislative chambers as well as among publishers, pulp and paper producers, and the public at large.

The significance of newsprint transcends national boundaries. The international cold war is today as much a struggle of ideas and ideologies as it is of men and weapons. Democratic tenets and principles cannot long thrive if their free and unfettered dissemination on a widespread scale is not possible. An adequate supply of newsprint is therefore indispensable. If in foreign lands new publications cannot begin, if the publication of old papers is curtailed or eliminated, if newspaper editions are shortened and circulation restricted, all of these factors tend to inhibit the effectiveness of our efforts to transmit the fundamental premises of the free world to peoples of other nations.

B. ECONOMIC BACKGROUND

To place the newsprint problem in perspective, a brief summary of the location and structure of the industry, pricing policies, trends in supply and demand for the product, and other economic factors is necessary.

Principal newsprint-producing countries of the world are Canada, the United States, and the Scandinavian nations. Of these, Canada is by far the world's largest supplier, accounting in 1952 for approximately 53 percent of total world production.[1] Of the 10,656,000 tons of newsprint produced throughout the world last year,

[1] Newsprint Association of Canada, Newsprint Data: 1952, p. 15.

5,690,000 came from Canadian mills, whereas only 1,170,000 was manufactured in the United States and a total of 1,012,000 in the Scandinavian countries.

While the United States is the second-largest newsprint manufacturer in the world, domestic production has not kept pace with the rise in domestic demand. Newsprint production in the United States actually declined each year from 1926 to 1938 from 1,687,000 tons to 832,000 tons, and by 1945 had further declined to slightly less than three-quarters of a million tons. The number of domestic mills regularly engaged in the production of newsprint from woodpulp also dropped sharply from 75 in 1910 to 39 in 1926, 20 in 1941, and to 13 in 1952. While United States production in the latter year well exceeded the million-ton mark, it nevertheless still fell far short of peak production attained more than a quarter of a century ago.

Newsprint paper—United States capacity, production, imports, new supply, exports and apparent consumption, for selected years, 1899–1952

Year	Number newsprint mills	Capacity [1]	Production	Imports	New supply [2]	Exports	Total year-end inventory [3]	Inventory change during year	Apparent consumption [4]		Continental United States population [5]
									Total	Per capita	
		Thous. of tons	*Thous. of tons*	*Thous. of tons*	*Thous. of tons*	*Thous. of tons*	*Thous. of tons*	*Thous. of tons*	*Thous. of tons*	*Pounds*	*Thous.*
1899	(6)	(6)	569	(6)	(6)	49	(6)	(6)	(6)	(6)	74,799
1909	(6)	(6)	1,168	19	1,187	36	(6)	(6)	1,151	25.4	90,492
1911	[8] 75	(6)	(6)	54	(6)	50	(6)	(6)	(6)	(6)	93,868
1919	[9] 50	(6)	1,324	628	1,952	110	(6)	(6)	1,842	35.2	104,512
1926	39	1,739	[7] 1,687	1,851	3,538	19	230	+50	3,469	59.0	117,399
1927	(6)	(6)	1,517	1,987	3,504	12	286	+56	3,436	57.7	119,038
1929	(6)	1,695	1,409	2,423	3,832	19	298	+12	3,801	62.4	121,770
1930	(6)	1,712	1,226	2,280	3,506	10	297	−1	3,497	56.8	123,077
1931	(6)	1,636	1,203	2,067	3,270	10	269	−28	3,288	53.0	124,040
1932	(6)	1,650	1,047	1,792	2,839	8	218	−51	2,882	46.1	124,840
1933	28	1,703	928	1,794	2,722	11	262	+44	2,667	42.4	125,579
1934	(6)	1,238	990	2,210	3,200	23	336	+74	3,103	49.1	126,374
1935	(6)	1,081	948	2,383	3,331	22	306	−30	3,339	52.4	127,250
1936	(6)	1,008	938	2,752	3,690	15	320	+14	3,661	57.1	128,053
1937	(6)	1,000	976	3,317	4,293	17	629	+309	3,967	61.5	128,825
1938	(6)	960	832	2,275	3,107	6	334	−295	3,396	52.3	129,825
1939	(6)	988	954	2,615	3,569	13	341	+7	3,549	54.2	130,880
1940	(6)	1,075	1,056	2,763	3,819	44	370	+29	3,746	56.7	131,954
1941	20	1,217	1,045	2,982	4,027	70	393	+23	3,934	59.1	133,060
1942	22	1,126	967	2,921	3,888	42	489	+96	3,750	56.0	133,771
1943	(6)	(6)	811	2,637	3,448	35	378	−111	3,524	52.6	133,966
1944	(6)	(6)	721	2,491	3,212	31	350	−28	3,029	45.7	132,552
1945	17	981	725	2,669	3,394	44	273	−77	3,427	51.9	132,019
1946	11	839	773	3,492	4,265	28	308	+35	4,202	60.0	139,899
1947	13	837	833	3,958	4,791	28	385	+77	4,686	65.3	143,405
1948	13	893	876	4,395	5,271	28	467	+82	5,161	70.6	146,113
1949	13	924	918	4,640	5,558	39	457	−10	[10] 5,529	74.1	149,215
1950	11	1,033	1,013	4,863	5,876	44	433	−24	[10] 5,937	78.8	150,697
1951	12	1,050	1,108	4,968	6,076	71	530	+97	[10] 5,975	77.9	153,383
1952	13	1,165	1,106	5,033	6,139	105	624	+94	[10] 5,988	77.0	155,542

[1] Capacity data from Bureau of Census, U. S. Department of Commerce, for 1928–32, inclusive, and 1934–40, inclusive, and 1947; data for other years from published reports of the Newsprint Service Bureau, American Newspaper Publishers Association and American Paper and Pulp Association.

[2] New supply equals production plus imports.

[3] As of Dec. 31. Stocks in hands of United States mill, United States publishers and in transit. Source: Office of Business Economics, U. S. Department of Commerce, from data compiled by Newsprint Service Bureau and American Newspaper Publishers Association.

[4] Apparent consumption equals new supply minus exports adjusted for change in inventory during each year.

[5] As of July 1. Excludes Armed Forces overseas.

[6] Not available.

[7] From Newsprint Service Bureau.

[8] Figures are for the year 1910.

[9] Figures are for the year 1920.

[10] From ANPA.

NOTE.—All data shown in tons are short tons of 2,000 pounds.

Source: Production, import, export, and population data from official statistics of the U. S. Department of Commerce, except as noted.

Insofar as consumption of newsprint is concerned, the United States predominates over all the nations of the world combined. Thus, of about 10.5 million tons of newsprint consumed throughout the world in 1952, approximately 6 million tons were used in the United States alone. The proportionate consumption of the United States has been rising, too. Whereas immediately preceding World War II the United States consumed 43.7 percent of the world's annual consumption of newsprint, in 1952 newsprint consumers in the United States accounted for 56.9 percent of world consumption. Over a period of more than 25 years the United States has averaged about 54 percent of worldwide newsprint consumption.

Because the increase in newsprint requirements of the United States has been accompanied over the long-term period by a decrease in newsprint production within its own borders, this country has come to rely more and more for its newsprint supplies upon foreign sources, principally Canada. Whereas at one time the United States was practically self-sufficient in the production of newsprint, today domestic publishers rely upon Canada for about 80 percent of their annual supplies, and for only about 18 percent from mills located within the United States itself.

United States imports of newsprint by sources, for selected years, 1926–49

[In thousands of tons]

Country of origin	1926	1929	1933	1939	1941	1945	1946	1947	1948	1949	1950	1951	1952
Canada	1,656.9	2,194.6	1,545.3	2,205.6	2,760.4	2,526.6	3,273.5	3,630.7	3,889.9	4,108.5	4,692.8	4,761.2	4,850.3
Newfoundland	93.9	131.9	94.9	99.1	219.1	142.2	204.8	198.2	237.1	276.4			
Sweden	46.0	50.7	68.1	61.9			1.2	25.0	69.9	36.7	18.5	29.7	15.6
Norway	6.2	3.5	16.6	42.5				5.9	27.8	29.7	4.9	9.5	4.3
United Kingdom	.1			1.0					3.1	34.7			
Netherlands				.6				.6	5.3	.5	.7		
Belgium		.1							.2			2.0	1.0
France	.5			3.1				9.9	28.1	2.0	2.0	5.4	
Germany	12.9	9.2	12.1	6.4									
Austria								2.0	1.2	.5			
Finland	34.3	32.6	56.6	195.0	2.9		12.8	84.1	132.0	150.6	144.0	159.7	161.9
Poland								1.6	(1)				
Russia													
Italy									.7				
Japan													
Mexico			(1)										
Denmark		(1)											
Czechoslovakia													
Others (unspecified)	(1)										.8		
Cuba												.7	
Total [2]	1,850.7	2,422.7	1,793.5	2,615.1	2,982.4	2,668.8	3,492.3	3,958.1	4,395.3	4,639.6	4,863.0	4,968.2	5,033.0

[1] Less than 50 short tons.
[2] Details do not necessarily add to totals because of rounding of figures.

Source: Exhibit N–19, Hearings, Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), Serial 14, pt. 6B; Chemicals, Rubber and Forest Products Bureau, NPA.

C. SHORTAGES AND PRICES OF NEWSPRINT

The most critical element of the newsprint problem—namely, that of supply—is not reflected by production and consumption figures. While, today, supply and demand for newsprint are at approximately the same level, this situation has been the exception rather than the rule for a period of time now exceeding a decade. Commencing in World War II, when supply shortages necessitated a sharp curtailment of newsprint consumption and continuing almost to the very present, many publishers have lived constantly under a cloud of actual or imminent newsprint shortages.

Even at this time, when supply-and-demand figures for newsprint have come into balance, the situation is far from reassuring. On April 27 of this year, the National Production Authority warned that "The precarious balance between newsprint production and the growing demand will continue indefinitely." [2] A similar conclusion was reached by Sir Eric Bowater, chairman of the Bowater Paper Corp. Ltd., London, England, in his report to the annual stockholders' meeting in London on March 18 of this year. Sir Eric stated:

> On the present basis of world consumption there is no longer a scarcity of newsprint and in fact supply and demand are now almost in balance. Nevertheless it is of interest to note that consumption in the United States showed a small increase during 1952 and topped the 6,000,000-ton mark, and for the month of January—the latest month for which figures are available—the consumption in that country showed an increase of 2 percent over the corresponding month of the previous year. Were this rate of increase to be maintained, it might well have the effect of again taking consumption out of balance with supply, in which event a return to some scarcity of this commodity might again develop; indeed, at the present time publishers in the Southern United States are still unable to obtain all the newsprint they could use, but this situation will, we are hoping, be alleviated when our new southern mills come into production early next year.[3]

The persisting lack of newsprint over prolonged periods of time has had serious repercussions upon newspaper publishing in the United States in the past. A recent report of the Senate Small Business Committee revealed that two-thirds of the publishers responding to a questionnaire indicated that they would have been able to consume more newsprint than they were at that time able to obtain, and over 90 percent of those replying believed the newsprint picture to be unsatisfactory or worse.[4] One publisher had "less print for the year of 1951 than we had during the war years when an actual emergency existed." Another "resorted to the use of reclaimed newsprint, black, soft, and unsatisfactory, because it keeps us in business."

Because of newsprint shortages, some United States publishers have been forced to curtail advertising to conserve newsprint supplies; others have been unable to expand their editions, either in size or in frequency of publication, to keep apace of the economic development of the communities they serve. The starting of new organs has been discouraged and full news coverage in some instances prevented. Inability to obtain necessary newsprint tonnage, according to one publisher, has been "* * * the prime reason for consolidation of many newspapers, and the closing of others."

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[2] Cited in ANPA Newsprint Bulletin No. 24—1953 (Apr. 30, 1953), p. 99.

[3] Cited in ANPA Newsprint Bulletin No. 23—1953 (Apr. 29, 1953), pp. 95-96. As a postscript to Sir Eric's remarks, it should be noted that consumption for the first 6 months of 1953 was running at a rate of 3 percent ahead of that for the year 1952.

[4] S. Rept. 1404, 82d Cong., 2d sess. (1952), p. 5.

Chief sufferers from newsprint shortages, as revealed by the findings of the Senate congressional committee investigating newsprint, have been the publishers of small dailies and weeklies and the newspapers of civic groups, labor unions, civil service employees, trade groups, religious organizations, veterans' groups, cooperative movements, and fraternal bodies.[5] On the whole, it has been the small publisher who has been most aggrieved by the unavailability of newsprint. As recently as the first quarter of 1952, it was necessary to assign on a voluntary basis tonnages from large newspapers in order to meet the acute needs of 824 weekly newspapers throughout the country.[6]

During the postwar years, the United States has fared relatively well with respect to its newsprint supplies compared with many of the other nations of the the world. India, despite the extended efforts of her National Government, has been unable to procure from abroad "more than a fraction of her minimum requirements of newsprint," [7] and, according to a recent dispatch in the New York Times, hundreds of small papers were reported to be suspending publication in that far-eastern nation because of increased production costs and the inability to secure sufficient newsprint at reasonably low rates.[8] Many nations in Latin America have also been in need of increased newsprint supplies,[9] while papers in Western Germany have experienced serious difficulty in obtaining newsprint.[10] Within recent years, such countries as Australia, Belgium, Egypt, Britain, France, and Turkey have all been faced with newsprint shortages of varying intensity.

Accompanying newsprint shortages has been the rapid rise of newsprint prices. A ton of newsprint which sold under contract for 50 dollars delivered in New York in 1941, brought $100 in 1949, $106 in 1950, $116 in 1951, and $126 in 1952. This precipitous rise in newsprint contract prices has brought many complaints from publishers whose profit margins have been cut by increased costs of publication. In the opinion of one publisher recently submitted to a congressional committee, "* * * the rising cost of newsprint constitutes the largest single threat to the existence of the small rural newspapers of the United States. For the smaller papers, cost, rather than scarcity, is the biggest factor in the newsprint-supply problem." [11] Wrote another—

> I feel that the rise in cost of newsprint, along with other paper products * * * is unjust and unfair and a long stride toward cutting out individual enterprise.[12]

It is nevertheless difficult to state unequivocally whether newsprint prices have been too high or whether, conversely, they have perhaps been too low. A comparison of the rise in newsprint prices with increased prices for other commodities, as shown by the wholesale price index, will depend largely upon which year is chosen as a base. While the recent increases in newsprint prices have undoubtedly affected publishers adversely, demand has been so great during most of the

[5] Supplies for a Free Press, Preliminary Report, Senate Small Business Committee, Committee Print, 82d Cong., 1st sess. (1951), p. 3.
[6] See National Production Authority, Minutes of Meeting of Newspaper Industry Advisory Committee, June 26, 1952.
[7] M. P. Bhargava, Newsprint Problem in India—An Immediate Solution, Indian Pulp and Paper, July 1951.
[8] New York Times, March 29, 1952, p. 5, column 5.
[9] H. Rept. 1527, 82d Cong., 2d sess. (1952), p. 14.
[10] ANPA, Newsprint Bulletin No. 27–1952 (April 2, 1952), p. 118.
[11] S. Rept. 1404, 82d Cong., 2d sess. (1952), p. 61.
[12] Id., p. 46.

postwar period that, as Congressman Clarence Brown once told the subcommittee—

* * * there wasn't a day they couldn't sell newsprint for twice what they were getting for it * * *.[13]

The self-restraint of newsprint producers in holding prices at levels beneath those warranted by demand however, did not prove as effective in all cases as would have adequate and sufficient newsprint supplies. The extent to which so-called "black" or "gray" market prices prevailed for newsprint during recent periods of acute shortage indicates that self-restraint on the part of manufacturers is a poor substitute for abundant and readily available newsprint supplies as a regulator of newsprint prices.

The height to which black market prices have risen in times of shortage have been noted by many sources. In March of 1952, the Associated Press indicated the level of black market prices for newsprint during the previous year as follows:

A year ago newsprint bought outside contracts would bring as high as $300 a ton, but now it is reported to have dropped to around $180. Some sales outside North America were made at $500 a ton.[14]

Arthur Treanor, former director of the Printing and Publishing Division of the National Production Authority, described to a congressional committee in June of 1951 the black market prices of newsprint in the United States as observed by his agency. Stated Treanor:

* * * we have seen in our office some shipment prices handled through a New York broker, out of Canada, for $230 a ton. That is what we call now the gray market and we used to call the black market, and that is shipments that go in that way. There have been shipments in the East that ran as high as $350 a ton, but they were very small, only one or two, I think. The gray market advertises all of the time, Mr. Wolverton, in the Editor and Publisher.[15]

Since the extent of the black market would vary proportionately to the severity of the newsprint shortage, it is difficult to ascertain exactly what portion of the total consumption of newsprint within the United States has, in the recent past, been purchased at prices in excess of the contract price. The Stanford Research Institute, however, in reporting the consumption of newsprint in the western region of North America [16] has released figures indicating that during the year 1951, some 52,145 tons of newsprint, or about 6 percent of total newsprint purchases for the western region, were bought by region consumers at premium prices. More than half of this tonnage was obtained at prices ranging over $169 per ton, with as much as $343 a ton having been paid in some instances.

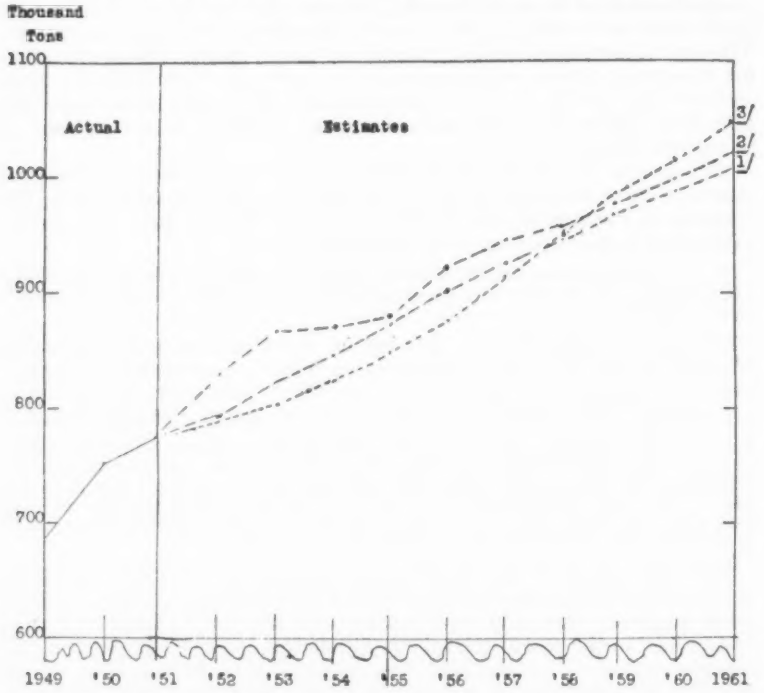
D. FUTURE OUTLOOK FOR NEWSPRINT

We have so far been concerned primarily with supply, price, and demand factors in the newsprint picture as they have existed in prior years. An intelligent approach to the newsprint problem must, however, concern itself with the outlook for the future with respect to

[13] Hearings, Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), Serial 14, pt. 6A, p. 343.
[14] Cited in ANPA Newsprint Bulletin No. 17-1952 (March 5, 1952), p. 77.
[15] Hearings, House Committee on Interstate and Foreign Commerce, 82d Cong., 1st sess. (1951), p. 253.
[16] Western region defined as to include the 11 Western States of the United States, British Columbia, Alberta, Alaska, and Hawaii.

these and other aspects of newsprint. While all future predictions are subject to human error, some of the principal trends in the field of newsprint can be ascertained with a fair degree of certainty.

ESTIMATES OF FUTURE NEWSPRINT DEMAND IN THE FAR WEST*



[1] Based upon correlation of newsprint purchases with population and real disposable income.
[2] Based upon correlation of newsprint purchases with daily and Sunday combined circulation, advertising lineage, and advertising ratios.
[3] Based upon economic approach.
*Far West includes the 11 Western States of California, Washington, Oregon, Idaho, Montana, Utah, Colorado, Nevada, Wyoming, New Mexico, and Arizona.

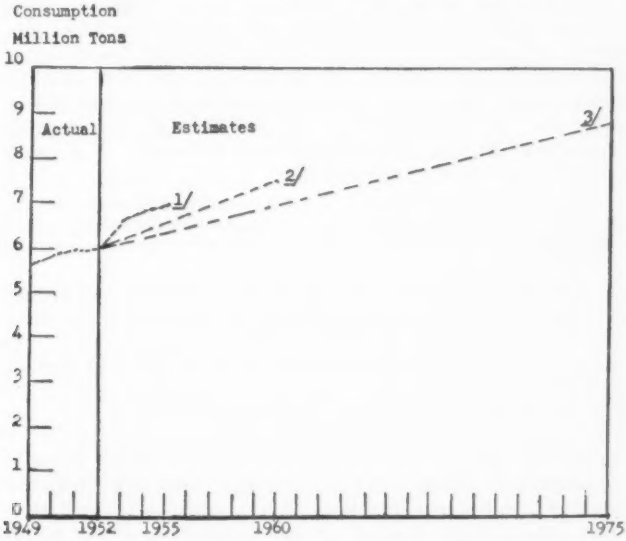
Source: Stanford Research Institute, The Newsprint Situation in the Western Region of North America, July 1952, exhibit B-1, p. 92; exhibit A-5, p. 90.

Weekday, Sunday, and weekly newspaper circulation in the United States has risen steadily for a period of 30 years and, based upon figures for increases in population, population distribution, and per capita income, will continue to climb. Estimates are that weekday newspaper circulation will rise by 20 percent, Sunday circulation, 33 percent, and weekly circulation, 9 percent, by the year 1960.[17] Advertising is becoming increasingly essential to the mass distribution of industrial products and the growth of commercial enterprises, and it is predicted that by 1960, newspaper advertising linage in the United States will grow by about 19 percent.[18] All these factors may bring total newsprint consumption in the United States to

[17] ANPA, Newsprint Now and in the Next Decade (Oct. 3, 1951), p. 10.
[18] Id., p. 21.

6,900,000 tons by 1955,[19] and to something under 7,500,000 by 1960.[20] Long-range estimates of requirements contained in the Paley Commission Report[21] place domestic newsprint consumption as of 1975 at approximately 8,700,000 tons.

ESTIMATES OF FUTURE U. S. NEWSPRINT DEMAND



[1] U. S. Department of Commerce, study of Newsprint Expansion, House committee print, 82d Cong., 2d sess., 1952, p. 15.
[2] American Newspaper Publishers Association, Newsprint Now and in the Next Decade, 1951, p. 22.
[3] The President's Materials Policy Commission, Resources for Freedom, June 1952, vol. V, p. 34.

On a worldwide basis, total newsprint consumption, retarded in the postwar years by idle capacity in foreign countries, inability to obtain supplies, and currency restrictions, is destined to regain its 1939 level during the current year. But in view of increased population and rising rates of literacy, newsprint use on a comparative basis still lags behind the prewar period. In the future, this discrepancy should be more than made up and, indeed, consumption increased at more rapid rates in view of gradual relaxation of Government controls, the availability of newsprint at other than premium prices, and the growth of economic activity and buying power in foreign areas. While it is relatively impossible to project accurately demand in the future, a total of 16 million tons by 1975 is not, according to the Newsprint Association of Canada, an unrealistic figure.[22] While this figure represents an increase of 5¼ million tons, or about 50 percent over present demand, it is, nevertheless, beneath the rate of growth that occurred between 1925–50 when world production rose by about 77 percent, and may over the long term prove to be a conservative estimate of the growth of newsprint requirements.

[19] Study of Newsprint Expansion, a Progress Report of the Department of Commerce to Subcommittee No. 5 of the Committee on the Judiciary, House committee print, 82d Cong., 2d sess. (1952), p. 15.
[20] ANPA, op. cit., supra, footnote 17, at p. 22.
[21] The President's Materials Policy Commission, Resources for Freedom (June 1952), vol. V, p. 34.
[22] Newsprint Association of Canada, Newsprint Data: 1952, pp. 12 and 16.

Where is the newsprint to satisfy these increased demands to come from? Principal newsprint-producing areas in the world include Canada, the United States, and the Scandinavian countries of Norway, Sweden, and Finland. It is doubtful, to say the least, that any great increases in production will occur in the latter three countries within the predictable future. Referring to past experience, it appears that of the total increase in world production of more than 5 million tons between 1925 and 1952, 4 million was accounted for by Canada alone, with only 1 million of the increase coming from the rest of the world, including Scandinavia. As to a possible renascent newsprint industry in Scandinavia in the future, that appears highly improbable. Overcut forests and the devastation of World War II still impinge upon pulp production in this part of northern Europe. And, as pointed out by the Department of Commerce:

> * * * Scandinavian countries have already seen fit to increase the production of higher priced items such as dissolving woodpulp and higher grade types of paper to the detriment of much, if any, further increased output in the lower-profit margin newsprint.[23]

What are the prospects for increased newsprint production in Canada? In the postwar years, Canadian production has been accelerated at an average rate of close to 200,000 tons a year, principally by speeding up the present operating ratio of existing facilities. It is estimated that between now and 1960, Canadian capacity may be expanded by an average of less than 200,000 tons a year, attaining the level of approximately 7,066,000 tons by the year 1960.[24] Meanwhile, however, demand in the United States will in all probability be rising at anywhere from 110,000 tons per year (Paley Commission estimates) to 150,000 tons per year (ANPA estimates) and an average of 120,000 tons a year in all other newsprint-consuming countries of the world. Thus worldwide newsprint requirements can be estimated to be increasing at from 230,000 to 270,000 tons annually.

Assuming the correctness of these estimates, by 1960, newsprint production in Canada will have been increased by 1½ million tons while worldwide demand will have risen from between 1,840,000 to 2,160,000 tons, leaving roughly from 340,000 to 660,000 tons of additional capacity which must be developed in addition to the projected expansion in Canada.

In the United States, a newsprint-expansion program is well under way which will, if pursued to a conclusion, add significantly to domestic newsprint production. The enlargement of domestic facilities envisions the erection of three complete newsprint mills, one by the Bowater Paper Co. in Tennessee, one by Georgia-Pacific Plywood Co. in Alaska, and another by Great Northern Paper Co. in Maine, as well as the enlargement of newsprint capacity by other producers. Fulfillment of the goal of this expansion program would bring into production in the United States at least an additional 494,000 tons of newsprint per year, which, while significant, still falls short of assuring the existence of an adequate newsprint supply.

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[23] Study of Newsprint Expansion, a Progress Report of the Department of Commerce, House Committee Print, 82d Cong., 2d sess. (1952), p. 10.

[24] Figures from the Newsprint Association of Canada indicate an increase of capacity for Canadian mills from 5,540,000 tons in 1952 to 7,066,000 tons in 1960, or about 187,000 tons per year. (Newsprint Association of Canada, Newsprint Comments—February 1952). The Pulp and Paperboard Division of NPA predicts expansion of newsprint capacity in Canada of approximately 150,000 tons per year plus about 70,000 tons a year now coming from the new mill at Duncan Bay in British Columbia (Study of Newsprint Expansion, A Progress Report of the Department of Commerce to Subcommittee No. 5 of the Committee on the Judiciary, House Committee Print, 82d Cong., 2d sess. (1952)).

NEWSPRINT EXPANSION PROGRAM REVISED AS OF SEPT. 10, 1953

	Tons
Expansion program	494,000
TA's certified	571,000
Balance unfilled	None
TA's pending	None

TABLE I.—*Facilities certified for newsprint expansion*

Company and address	TA No.	Date certified	Thousands of tons	Estimated capacity increase by—				Cost in thousands of dollars	Percent certified
				1953	1954	1955	1956		
Bowater Southern Paper Co., Charleston, Tenn.	9,650	Feb. 19, 1952	125		39	60	26	51,500	45
Great Northern Paper Co., Millinocket, Maine	11,393	Mar. 18, 1952	13	6	7			7,000	20
Do	19,925	May 16, 1952	154			75	79	45,405	45
Publishers Paper Co., Oregon City, Oreg.	13,583	Feb. 19, 1952	4	4				248	40
Southland Paper Co., Lufkin, Tex.	10,742	do	68				68	15,040	45
West Tacoma Newsprint Co., West Tacoma, Wash.	10,831	do	30	20	10			5,000	45
Superior Newsprint Co., Gary, Ind.	23,857	Feb. 16, 1953	5		5			2,285	45
Valentine Pulp & Paper Co., Locksport, La.	24,241	Feb. 27, 1953	17		9	8		2,633	45
Georgia-Pacific Plywood Co., Juneau, Alaska	22,795	Aug. 24, 1953	155				155	54,174	40
Total			571	30	70	143	328	183,285	

Source: Chemicals, Rubber, and Forest Products Bureau, NPA.

E. FACTORS AFFECTING FUTURE PRODUCTION AND DEMAND

There are a number of important economic factors not included in the above discussion of future production and demand. First are those considerations which might tend to enlarge still further estimates of future newsprint requirements. We may take as one of these the matter of newsprint prices.

There is no doubt but that the price of newsprint will have a direct effect upon the demand for newsprint "Like other producer goods," observed the Stanford Research Institute in 1952, "there is a direct relationship between the quantity of newsprint that will be taken by the total market and its price." [25] High prices may cause publishers to change to narrow columns or page widths thereby cutting down on the amount of tonnage consumed. Or publishers may resort to increasing ad rates resulting in a decline in newspaper advertising with concomitant results in newsprint consumption. Rising costs, among them newsprint, may cause increased newspaper prices leading to lower circulations, and, in any event, may tend to restrict the expansion of editions either in volume or in area of circulation.

That many of these practices have occurred on a substantial scale as a result of recent increases in the price of newsprint was confirmed by the American Newspaper Publishers Association in its report on newsprint presented to the ANPA annual convention on Wednesday, April 22, 1953, which read in part as follows:

> Naturally, increased payroll and paper costs have had their inevitable result. Publishers have been forced to increase circulation and advertising rates and this has had the to-be-expected result of checking both circulation increase and advertising volume.
>
> As a partial offset to recent newsprint price increases, many publishers have adopted narrower width newspaper roll sizes, and this is being accelerated. [26]

In view of these factors, the fact that demand may be temporarily equated with supply by the expedient of raising prices is no indication whatsoever that the newsprint shortage, either worldwide or domestic, has permanently abated. As the ANPA report cited above warned:

> All of these are factors in the current balance of supply and demand which make it unwise for publishers to become complacent as to the future in newsprint.[27]

In the United States, for example, the annual rate of growth of newsprint demand over the past 2 years has fallen considerably in the face of constantly rising prices. Newsprint demand, which rose at an annual rate of 400,000 tons in the postwar years, increased by only 38,000 tons between 1950 and 1951 and by only 13,000 tons in 1952. In the interim period, however, the contract price of newsprint had risen substantially from $67 delivered in New York on January 1, 1946, to $126 on January 1, 1953. The spot market price, during much of this period, ranged considerably higher.

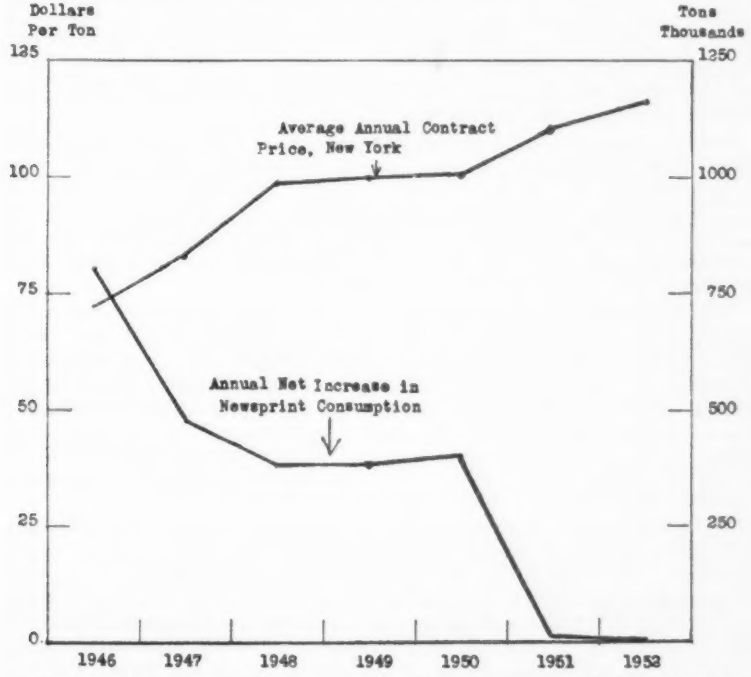
The exact extent to which the demand for newsprint may be diminished as prices continued to climb higher and higher is difficult to ascertain. Figures taken from the study of the Stanford Research Institute, however, based upon reports received from publishers in the western region of North America indicated that in 1951, effective demand in the 11 Western States of the United States, British Columbia, Alberta, Alaska, and Hawaii was curtailed by approximately

[25] The Newsprint Situation in the Western Region of North America (1952), p. 17.
[26] Reprinted in ANPA Newsprint Bulletin No. 22—1953 (Apr. 27, 1953), p. 92.
[27] Ibid.

53,600 tons, or about 6 percent of the total volume of newsprint purchased in the entire region, by virtue of high prices over and above contract prices prevailing for newsprint during the year. As the report stated:

> If publishers had been able to obtain additional newsprint at contract prices, and therefore at lower composit market prices, they would have purchased newsprint in addition to their actual purchases (at both contract and premium prices) to the extent of approximately 53,600 tons.[28]

NEWSPRINT PRICES AND U. S. NEWSPRINT CONSUMPTION



Source: American Newspaper Publishers Association, Newsprint Statistics, 1952, Newsprint Bulletin No. 11—1953 (Feb. 27, 1953).
U. S. Department of Commerce, Transportation Factors in the Marketing of Newsprint, Transportation Series 2 (November 1952), p. 91.

The sudden removal of Government currency and other economic restrictions in various areas of the world might also have widespread repercussions on the picture of newsprint demand. Whereas the belief may prevail among persons in high quarters that the chronic newsprint shortage has been relieved by virtue of the fact that 1953 production has been sufficient to satisfy effective newsprint demand, it nevertheless remains a fact that without economic and political impediments to consumption, the shortage in 1953 would be as acute as in prior years. Thus the Newsprint Association of Canada pointed out the fact that while worldwide productive capacity was perhaps adequate to satisfy effective demand for 1953, these estimates took no account of a "reduction of over 400,000 tons which would be

[28] Stanford Research Institute, The Newsprint Situation in the Western Region of North America (1952), p. 19.

added to demand if it were possible for consumers to buy and use newsprint without restraint." [29]

While we have noted some factors which, if altered, might seriously necessitate an upward revision of newsprint demand estimates, we shall now advert to certain aspects of the newsprint situation affecting the potentiality of future production and supply.

One of the principal factors militating against increased newsprint production is the limited nature of our forest resources. While there is an annual surplus growth of hardwoods in the forests of the United States, extensive cutting of softwoods, from which newsprint is derived, results in a drain each year upon our stands of softwood species. The depletion of our forests with respect to preferred softwood timber was described by the United States Forest Service to a Senate subcommittee as follows:

> Preferred softwood species also are being heavily overcut, whereas hardwoods, many of undesirable species, are in general increasing. Thus in 1945, total softwood growth amounted to 83 percent of softwood drain, whereas hardwood growth exceeded hardwood drain by 20 percent. The deficiency in softwood growth was even more marked in the case of saw-timber size material. This overcutting of softwoods is of particular significance to the pulp and paper industry since about 86 percent of the total cut of pulpwood, and essentially all the wood used for newsprint, is comprised of softwoods.[30]

The significance of the limitations of our forest resources upon additional newsprint production was recently emphasized by the Newsprint Association of Canada in discussing the possibility of additional expansion in the Dominion to meet rising newsprint demand in the future. The association indicated that increased capacity would—

> * * * mean new demands on world forest resources which they are less able to absorb. It means that the economic frontiers must be pushed back to gain access to resources in new regions and it means that the resources must be taken over for use in newsprint, in competition with other wood-using industries.[31]

In the United States the lack of available timber has seriously affected additional production of newsprint as well as other paper products. In New York, "the general forest problem * * * may be expressed as one of shortage of the kinds of wood required to sustain the existing industries and to supply consumers with wood products." [32] The situation in New England was described to the subcommittee by Alvin Caspar, vice president of the Great Northern Paper Co., as follows:

> * * * in New England * * * there is a problem of wood supply. Cut and growth of softwood are closely balanced. The Forest Service estimates a small surplus growth, but it is too small to warrant any appreciable increase in production by the paper companies in that area. * * * Even though the Service reports that, in New England, on holdings of over 50,000 acres * * * 95 percent of the cutting practice was good or fair in 1944 and prior years, I do not believe that the State of Maine or New England could sustain any considerable increase in production of pulp and paper.[33]

Spokesmen for newspaper groups, anxious to enlarge their newsprint supplies, have indicated that if adequate resources were available, they would be willing to invest substantial sums of capital to erect new

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[29] Newsprint Association of Canada, Newsprint Data: 1952, p. 21.
[30] U. S. Forest Service, Report on Timber Supplies for Expanded Production of Newsprint, printed in Study of Newsprint Expansion, A Progress Report of the Department of Commerce, House Committee Print, 82d Cong., 2d sess. (1952), p. 77.
[31] Newsprint Association of Canada, Newsprint Data: 1952, p. 16.
[32] C. J. McCormick, Acting Secretary of Agriculture, Hearings before the Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), serial 14, pt. 6B, p. 494.
[33] Id, pt. 6A, p. 811.

newsprint mills in this country. This, at least, was the consensus at a Newspaper Industry Advisory Committee of the National Production Authority which met on June 26, 1952, to discuss the problem of expanding newsprint production. The views of these representatives, as summarized by the Department of Commerce, were as follows:

> Many factors would influence such an investment (in new newsprint mills), committee members explained. Capital investments in other paper products provide a better financial return than newsprint, it was pointed out. It was generally believed, however, that publishers would invest in newsprint mills if the raw materials for newsprint production were available.[34]

Some indication of the extent to which further newsprint expansion in the United States is restricted by the depletion of our timber resources, particularly insofar as softwoods are concerned, may be had from the following table showing annual growth and drain of commercial forest lands in the United States for the year 1945.

Volume, growth, and drain of timber on commercial forest lands of the United States, by regions, 1945

[Millions of cubic feet]

Region	Timber stand volume			Annual timber growth		
	Total	Softwoods	Hardwoods	Total	Softwoods	Hardwoods
Northeast	51,985	16,694	55,291	2,294	692	1,602
Lake	23,209	7,090	16,200	812	178	634
Central and Plains	24,715	1,748	22,967	1,560	106	1,454
South	130,874	58,332	72,542	6,391	3,520	2,871
Rocky Mountain	48,792	47,501	1,291	735	714	21
Pacific coast	190,479	188,722	1,757	1,578	1,546	32
Total United States	470,045	319,997	150,048	13,370	6,756	6,614

Region	Annual timber drain			Difference between growth and drain		
	Total	Softwoods	Hardwoods	Total	Softwoods	Hardwoods
Northeast	1,607	555	1,052	+687	+137	+550
Lake	747	323	424	+65	−145	+210
Central and Plains	1,319	56	1,263	+241	+50	+191
South	6,461	3,703	2,758	−70	−183	+113
Rocky Mountain	420	412	8	+315	+302	+13
Pacific coast	3,107	3,102	5	−1,529	−1,556	+27
Total United States	13,661	8,151	5,510	−291	−1,395	+1,104

Source: U. S. Forest Service Reappraisal Project, 1945.

A number of other economic factors may also serve to discourage expansion of newsprint producing facilities. Capital costs in the newsprint industry are exceedingly high. In addition to expenses incurred in obtaining and maintaining forestlands, growing and cutting timber, and transporting pulpwood to the mills, large sums of money must be expended to assure adequate power supplies. The giant newsprint mills are in themselves costly to construct, rivaling closely in amount the large sums required for the erection of capital facilities in the steel industry.

Rising prices in recent times as well as the shortage of needed materials have increased the financial hazards of erecting facilities in

[34] Study of Newsprint Expansion, A Progress Report of the Department of Commerce, House Committee Print, 82d Cong., 2d sess. (1952), p. 26.

this industry. Whereas in 1920, or thereabouts, investment per ton of newsprint capacity was approximately $35,000 a ton,[35] capital investment for the Coosa River mill completed in 1949 was $80,000 per ton, not including many items ordinarily included as capital costs. Crown Zellerbach has estimated capital requirements for the new mill of its subsidiary in Elk Falls, British Columbia, to approximate $90,000 a ton,[36] and the Stanford Research Institute has placed investment per ton of daily capacity for a new newsprint mill on the Olympic Peninsula in Washington at as much as $97,000 per ton for a 2-machine 500-ton-per-day mill and $114,000 per ton for a 1-machine 250-ton-per-day mill.[37]

Annual depreciation charges for newly constructed mills on a normal writeoff basis equal about $14 per ton as compared with approximately $4 a ton for facilities now in place. An indication of the widespread differential existing between depreciation changes for capacity now in place and new facilities may be obtained from the following excerpt from the minutes of a recent meeting of an industrial advisory group of the Government:

> As a basis of comparison, an industry representative referred to a report from the Canadian Newsprint Association in which the average rate of depreciation for Canadian mills is estimated at $4.06 per ton. According to industry representatives, the estimated rate of depreciation in new mills under construction by United States companies will range from $11.19 to over $25 per ton.[38]

The relationship of high capital costs in the industry to the pricing structure for newsprint has, according to industry spokesmen, also exercised a restraining influence on the addition of new productive capacity. It is claimed that the rate of return upon invested capital in the newsprint industry has been insufficient to attract investment in new productive facilities because of the low level of newsprint prices.

The rate of return on the Elk Falls mill recently completed by a Crown Zellerbach affiliate in Canada indicated a yield of not more than 5.4 percent based upon the 1950 newsprint price of $100 per ton. Estimates such as these led J. D. Zellerbach, in a letter received by the subcommittee, to indicate his opinion of the inadequacy of return on capital invested in new newsprint-producing facilities and the consequent need for an upward revision of newsprint prices as follows:

> I think the figures support my statements to the effect that the price of $100 a ton delivered on newsprint is not sufficiently high to attract new capital into the newsprint industry and if, as seems quite evident, it is desirable to attract new capital, a higher price for newsprint will be necessary.[39]

More recent figures appear in a study prepared by the Stanford Research Institute which estimated a return of 7.6 percent on equity investment were a new mill with an annual capacity of 172,500 tons to be erected in the Hoh River-Grays Harbor area of the State of Washington and a return of 5 percent on a mill in the same location capable of producing 86,250 tons per year.[40] These figures are predicated upon a price of $116 per ton for newsprint.

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[35] Testimony of J. D. Zellerbach, Hearings before the Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), serial 14, pt. 6A, p. 980.

[36] Hearings before the Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), serial 14, pt. 6B, p. 1006.

[37] Stanford Research Institute, op. cit., supra, footnote 25, at pp. 72-73.

[38] Minutes, Special Conference of Newsprint Manufacturers, June 18, 1952.

[39] Hearings before the Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), serial 14, pt. 6B, p. 1007.

[40] Stanford Research Institute, op. cit., supra, footnote 25.

Representatives of the industry have considered the low rate of return on investment brought about by the low level of newsprint prices one of the most serious factors impeding the development of additional production. At a recent special conference of newsprint manufacturers called under the sponsorship of the National Production Authority, industry representatives concurred that impetus to increasing production could best be obtained by the effectuation of a more favorable price level. The minutes of this meeting noted:

> The greatest stimulant to increasing newsprint output in the United States, industry representatives concurred, would be a more favorable pricing structure.

The low price of newsprint is also said to have driven producers from newsprint manufacture into the production of other lines of paper products. At the industry advisory committee meeting cited above, members pointed out that "Because of the low rate of return on newsprint compared with other grades of paper, many manufacturers have shifted their production to more profitable lines."

There is presently available no accurate study of comparative costs of newsprint production and the manufacture of other paper products. But for whatever reason, it is evident that other paper products have appeared more attractive to new venture capital than has newsprint. Even in Canada, long the bulwark of the world in newsprint production, manufacturers have found the production of other pulp and paper products increasingly more desirable than newsprint. In 1932 over 80 percent of the wood pulp produced in Canada went into the manufacture of newsprint, but by 1951, the amount had declined to 60 percent. In 1932 newsprint accounted for about 20 percent of the annual depletion of Dominion forests; in 1951, only 15 percent. Concluded the Newsprint Association of Canada after reviewing these figures, "Apparently, as a matter of economic choice, newsprint has not recently held its own in contest for the utilization of Canadian forests." [41] A similar conclusion was reached by Robert Fowler, president of the aforesaid association, when he recently addressed the Town Hall Forum in New York. In spite of major increases in newsprint capacity since the war, Fowler told his United States audience, "* * * it seems to be a steadily shrinking percentage of total Canadian production. Newsprint production increased by about one-third between 1946 and 1951, while the production of pulps of many kinds and qualities rose by over 60 percent. * * * With their relatively faster growth, the production of pulps and papers other than newsprint increased from 40 percent of our total production in 1946 to about 45 percent in 1951, and their vigorous growth is expected to continue." [42]

To recapitulate, let us summarize briefly those factors bearing upon the supply and demand picture for newsprint in the future. It is evident, to begin with, that newsprint requirements, not only in the United States but throughout the rest of the world as well, will rise significantly in the immediate and distant future. While estimates of the extent of this upsurge vary, there has been no dissent from the general proposition that newsprint demand will grow substantially in the near and long term. There is widespread recognition of the fact

[41] Newsprint Association of Canada, Newsprint Data: 1952, p. 17.
[42] Quoted in ANPA Newsprint Bulletin No. 17—1953 (Mar. 25, 1953), p. 75.

that additional newsprint production is essential to meet the constantly increasing newsprint needs projected for the future.

While newsprint producers indicated that all efforts would be made to meet additional requirements forthcoming in the future, there were a number of factors bearing upon their ability to do so. In the first place, estimates of demand did not in all instances include potential newsprint demand which could suddenly be unleashed by the removal of Government restrictions, easing of international currency regulations, and a return of prosperity in numerous nations of the world. Nor was it able to be determined the extent to which demand would be increased by a lowering of newsprint prices both in the United States and throughout the world.

To the extent that demand might be greatly expanded by mitigation of any or all of the conditions noted above, so too were there factors tending to impede additional newsprint production. The limited nature of our forest resources together with increasing demands for newsprint as well as other pulp and paper products was resulting in an annual drain upon the Nation's softwood supplies. Greater production was impossible without assurance of adequate sources of raw materials for the manufacture of pulps used in newsprint. In the opinion of industry, other economic factors such as high capital costs of newsprint-producing facilities or the rate of return on investment in the industry might also deter the erection of new capacity for the manufacture of newsprint.

In the picture of rising demand and the need for further production, the problem of the price of newsprint played a paradoxical role. High prices for newsprint had already limited effective demand to a considerable extent, and yet an adequate supply of newsprint could only be said to exist when there was an abundant supply at reasonable prices that most consumers could afford. The lowering of the price of newsprint in the future would serve to enlarge existing estimates of newsprint requirements. On the other hand, the price of newsprint was not sufficient, from the producers' point of view, to encourage additional productive facilities, and indeed, compared with the returns available in the manufacture of other paper products, tended, according to industry spokesmen, to decrease potential productive facilities by causing diversion of existing newsprint capacity to other grades.

While it was therefore apparent that additional newsprint capacity was sorely needed, it was also obvious that there were many serious obstacles in the way of additional production. Supply was temporarily balanced with demand for the year 1953, but the economic picture of the future was far from reassuring unless positive steps were to be immediately taken to obviate some of the difficulties described above. A long term solution to the newsprint shortage depended upon the ability to resolve the pricing-production dilemma as well as overcome other obstacles to further newsprint expansion such as shortages of raw materials.

II. Activities of the Subcommittee Relating to Newsprint

When the subcommittee first turned its attention to the subject of newsprint in June of 1950, many of the various aspects of the newsprint problem heretofore outlined at length had existed for many years. The production of newsprint in the United States had, over

the long term period, declined steadily since 1926, whereas between the latter year and 1948, total annual domestic production of paper and board products had risen from 9.8 million tons to 21.9 million tons. The number of domestic mills manufacturing newsprint had fallen from 39 in the year 1926 to only 13 by 1947. Newsprint shortages had repeatedly gripped the Nation despite numerous assurances that supply had at last overtaken demand. The contract price of newsprint had already doubled in the intervening period since the start of World War II, and many small publishers were paying exorbitant prices in the black market to obtain necessary supplies.

To begin with, the subcommittee was primarily interested in the antitrust laws and their applicability to the newsprint industry as well as the extent to which activities of newsprint-producing concerns had departed from the general principles of free and open competition. To acquaint itself with the structure of the industry, its production, pricing, and distribution policies, and their impact upon publishers, the public, and other actual or potential producers or consumers, the subcommittee undertook an intensive investigation of the entire newsprint production, supply, distribution, and demand picture. Public hearings began on June 19, 1950, and ran until July 20 of that year. The published record of the subcommittee, consisting of more than 1,100 pages of printed testimony, was supplemented by a volume of newsprint exhibits containing approximately 1,200 pages of documentary material bearing upon the structure and practices of the industry and other relevant matters.[43]

On the basis of these investigations, two reports were issued by the subcommittee relating to newsprint and pulp respectively.[44] These reports deal extensively with the structure of the newsprint and pulp and paper industry in general and contain the subcommittee's conclusions and recommendations with respect thereto. Except to indicate the principal findings of the subcommittee and outline briefly additional material which has since appeared bearing upon the findings of the subcommittee, no attempt will herein be made to restate the voluminous material contained in these prior publications. Instead, principal emphasis will be placed upon the subsequent activities of the subcommittee in its efforts to assist in a constructive manner in the solution of certain of the problems disclosed by the investigations referred to.

A. INVESTIGATIONS AND REPORTS, 1950–51

In order to recommend constructive policies insofar as newsprint is concerned, it was absolutely essential that the subcommittee itself obtain a thorough and detailed knowledge of the structure and operations of the newsprint industry. The significance of the fact that almost 80 percent of our newsprint is manufactured by companies operating in Canada, for example, must be constantly borne in mind when devising methods for combatting the recurrence of newsprint shortages. To the uninitiated, the price of newsprint and the absence of new productive facilities appear to have no causal connection whatsoever, whereas the erection of new mills may depend largely if not entirely upon the sufficiency of the return at existing contract prices.

[43] Hearings, Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), serial No. 14, pts. 6A and 6B.
[44] H. Rept. 505, pts. 1 and 2, 82d Cong. (1951–52).

It was therefore the first task of the subcommittee to become intimately acquainted with the working operations of the newsprint industry, including its patterns of production, pricing, and distribution.

The following is a summary of the subcommittee's findings in this regard.

1. Structure of the newsprint industry

The largest segment of the newsprint industry is located in Canada, principally in the provinces of Ontario and Quebec. As of 1950, more than 80 percent of all Canadian mills engaged in newsprint manufacture in Canada were located in these two provinces. The largest companies in the Dominion are the affiliated companies of International Paper Co. (annual capacity, 815,584 tons); Consolidated Paper Corp. (annual capacity, 729,763 tons); Abitibi Power & Paper Co. (annual capacity, 720,720 tons); and Price Bros. & Co., Ltd. (annual capacity, 450,000 tons). Together, these four firms account for 47 percent of total Canadian newsprint capacity. While the firms mentioned are all located in Canada, it is roughly estimated that at least 30 percent of total Canadian newsprint capacity is controlled directly by interests in the United States, since many publishers in the United States have investments in newsprint mills located in Canada and a number of Canadian firms are affiliates of United States corporations.

In this country, Great Northern Paper Co. in Maine, and Crown-Zellerbach in the Pacific Northwest are the most important newsprint producers although in recent years, a thriving newsprint industry in the South comprised of Coosa River Newsprint Co. located in Coosa Pines, Ala., and Southland Paper Mills in Lufkin, Tex., has come into existence.

2. Newsprint contracts

The major share of newsprint sold in the United States is disposed of under long-term contracts ranging anywhere in length from 5 to 15 years. These contracts are principally with larger papers that are able to purchase in carload lots. Small publishers, who do not buy in such large quantities, generally obtain their newsprint requirements from jobbers or paper merchants.

For many years, newsprint contracts of a number of producers have contained provisions relating the price of newsprint sold thereunder to the market price of other principal newsprint producers. The mills most frequently mentioned in this regard have been Abitibi, Consolidated, Great Lakes, International, and Price Bros. Provisions in the contracts of many sellers tie the price of newsprint sold to the average of any two or more of the above-named concerns, with the average price of the named producers constituting either a ceiling which the seller cannot exceed in price or the actual price at which the seller must at all times offer his product. As of 1950, six companies which accounted for almost one-half of total North American newsprint capacity had their prices related either directly or indirectly to the prices of other newsprint manufacturers.

3. Newsprint prices

The newsprint industry affords a classic example of what is commonly known as price leadership. Prices, instead of varying from producer to producer, are generally identical for all manufacturers and either rise or fall in unison. A typical illustration of this type of

price behavior is afforded by the recent $10 increase in the price of newsprint which brought newsprint to $126 per ton delivered in New York.

Two principal reasons were offered by producers to justify this latest increase in newsprint prices. One was the rising costs of production and the other was the difference existing in exchange rates between the United States and Canada placing a premium upon the Canadian dollar. For these reasons, price increases were first announced by both Abitibi and Consolidated Paper Co. on May 19, 1952, effective as of June 15. One day later, Powell River made a similar announcement, and on May 22, Price Bros. likewise followed suit. By June 4, the ANPA was able to headline categorically that "All Large Canadian Producers Have Announced $10 Increase." [45]

The action of American companies in this regard is interesting. While the prices of many newsprint producers in the United States were well below OPS ceilings prior to the increases made by the Canadian mills, no price increases occurred on the part of United States producers until the mills in Canada had made announcements of forthcoming rises. At that time, newsprint prices of domestic producers also rose although there existed no international monetary exchange problem for American mills which was one of the prime reasons offered by Canadian mills for raising the price level.

Price increases of North American newsprint producers—1952

[New York delivered price or equivalent]

Company	Date announced	Prior price	Increase	New price	Effective date
Abitibi	May 19	$116	$10.00	$126.00	June 15
Consolidated	do	116	10.00	126.00	Do.
Powell River	May 20	[1] 116	10.00	126.00	June 16
Angle Newfoundland	do	116	10.00	126.00	June 15
Anglo Canadian	do	116	10.00	126.00	Do.
Great Lakes	May 21	116	10.00	126.00	Do.
Price Bros	May 22	116	10.00	126.00	Do.
St. Lawrence	May 26	116	10.00	126.00	Do.
International	May 30	116	10.00	126.00	Do.
Mersey Paper Co	May 31	116	10.00	126.00	Do.
Bowaters	June 2	116	10.00	126.00	Do.
Donnaconna	do	116	10.00	126.00	Do.
Minnesota & Ontario		116	10.00	126.00	Do.
Crown-Zellerbach	July 18	116	10.00	126.00	July 18
Inland Empire	July 28	116	10.00	126.00	Aug. 1
St. Croix	Aug. 29	116	5.00	121.00	Oct. 1
Southland	Sept. 9	116	6.00	122.00	Do.
Coosa River	Sept. 19	[2] 120	5.50	[2] 125.50	Nov. 1
Great Northern	Sept. 20	116	7.00	123.00	Oct. 1

[1] At main Pacific coast ports.
[2] F. o. b. mill with "an allowance (with certain limitations) in lieu of freight equal to the carload rate of freight to destination."

Source: ANPA, Newsprint Bulletins, selected dates.

Price uniformity in the newsprint industry has been facilitated by the employment by most concerns in the industry of a unique zone map dividing the United States into 10 different zones for the purpose of pricing. Differentials are charged for each zone and for certain cities designated as ports which are either over or beneath the so-called base price that prevails for sales made in zone 4. The most significant price in the zone price structure is the New York port price which

[45] ANPA Newsprint Bulletin No. 43–1952 (June 4, 1952), p. 187.

over the years has practically coincided with the f. o. b. wholesale price at Canadian mills in southern Quebec plus the rail freight from Three Rivers, Quebec, to New York. The New York City price is $1 below the base or zone 4 price.

While originally, the zone map was probably a general attempt to reflect differentials in freight throughout the United States and to average shipping costs of mills selling in various areas of the country, present pricing under the zone system no longer accounts accurately for freight differentials. Reported the Department of Commerce in a recent study of the zone system used in the sale of newsprint:

> Geographic boundaries under the zone delivered pricing system when the zones were originally established probably reflected the average delivery cost of newsprint mills shipping to various sections, as noted earlier. However, subsequent to the establishment of the differentials shown on the OPA zone map economic changes have occurred which have not been reflected in the differentials * * * Under prevailing inflexible differentials, it appears that general freight rate increases and decreases are reflected in a zone delivered price only to the extent that changes occur in the Three Rivers-New York basic freight rate. The failure to adjust zone differentials in order to compensate for general freight rate increases may indicate that most manufacturers prefer to retain a degree of control over transportation costs as a means of discouraging the location of new plants outside existing areas of production concentration.[46]

A number of implications in the zone system of prices should be noted. In the first place, prices for almost all producers are identical for each zone irrespective of their distance from the point of consumption and irrespective of varying freight rates applicable between different plants and the point of consumption. It is apparent, too, that prices prevailing in a city that has been designated as a port city may differ from other coastal locations with identical port facilities and transportation costs. Another aspect of the zone system is the receipt of phantom freight by certain mills in those instances where the freight element included in the zone price exceeds the actual freight charges to destination, and the absorbing of freight where the reverse is true. Where both rail and water transportation are available, the consumer under the zone system may also be denied the benefits of the cheaper form of transportation by virtue of the prices established for respective zones.[47]

4. Agreements Among Newsprint Companies

The subcommittee has previously described in detail the evidence available respecting agreements among newsprint companies relating to pricing, and other marketing practices.[48] At this point, therefore, a brief summary only for purposes of recapitulation will be made of this aspect of the subcommittee's investigation.

The earliest evidence obtained by the subcommittee with respect to agreements among newsprint companies relating to the United States goes back to October 4, 1937, at which time, evidence indicates that the sales manager of Crown Zellerbach Corp. discussed and agreed upon newsprint prices for various areas on the west coast with representatives of Powell River and another west coast competitor. Subsequently, Crown Zellerbach, Powell River, and other west coast newsprint sellers were indicted for engaging in "an unlawful combination and conspiracy to fix, maintain and control prices and terms for the sale of newsprint paper in interstate and foreign commerce." Principal defendants pleaded nolo contendere and paid fines totalling $30,000.

[46] U. S. Department of Commerce, Transportation Factors in the Marketing of Newsprint, Transportation Series No. 2 (1952), pp. 99-100.
[47] Id., p. 105.
[48] H. Rept. 505, pt. 1, 82d Cong., 1st sess. (1951).

Zone	1	2	3	4	5	6	7	8	9	10
Price Differentials	-$ 1.50	-$ 1.00	-$ .50	Base Price	+$ 1.00	+$ 2.00	+$ 3.00	+$ 4.00	+$ 5.00	*

PORTS SHADED ⊘ SHALL TAKE ZONE 4 BASE PRICE LESS A PORT ALLOWANCE OF $ 1.00 PER TON

*THE NEWSPRINT PRICE IN ZONE 10 IS THE BASE PRICE LESS $1.00 AT THE DESTINATION, WHEN DELIVERY IS ALL RAIL FROM THE MILL AND THE RAIL FREIGHT EXCEEDS $6.00 PER TON THE PRICE IS BASE PRICE LESS $6.00 A TON F.O.B. MILL PLUS THE ACTUAL RAIL FREIGHT. WHERE DELIVERY IS MADE VIA A PORT THE PRICE IS THE BASE PRICE LESS $1.00 AT SUCH A PORT PLUS THE LOCAL FREIGHT TO DESTINATION.

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Approximately 1 year later, a representative of Scandinavian newsprint interests reporting his observations of the operations of the newsprint industry on a trip to Canada in October of 1938, averred unequivocally that "The fact remains meanwhile, that in one way or another agreement is reached on uniform prices within the same markets, including the United States of America." [49]

Evidence more recently uncovered, although largely hearsay in nature, indicates that prices for newsprint sold in the United States are discussed and agreed upon at meetings held in Canada that are attended by newsprint manufacturers. This evidence is contained in recent correspondence between United States agents of Scandinavian pulp producers and their principals abroad.

The markets of the world outside the United States which have been affected by agreements among newsprint producers are worthy of special note. For shipments to the Orient, Export Sales Co. was formed by Powell River and Pacific Mills, a Canadian subsidiary of Crown Zellerbach Corp. Export Sales Co. marketed the tonnage of both Powell River and Pacific Mills in Japan, China, Korea, and Manchukuo in agreed-upon percentages and handled sales of paper from mills located in eastern Canada as well. The objective of Expert Sales Co. was to "control competition", and prices charged by Export Sales Co. for the oriental market were to "be fixed by Powell and Pacific Mills."

The Seven Suppliers Agreement, which ran from 1939 to 1948, divided up sales of newsprint to Australia and New Zealand among 7 newsprint manufacturers in accordance with the historical pattern of sales prevailing in that area as follows:

	Percent		*Percent*
Canadian International	12. 5	Powell River	15. 0
Consolidated Paper Co	17. 5	St. Lawrence	10. 0
Mersey Paper Co	12. 5	Price Bros	20. 0
Pacific Mills, Ltd	12. 5		

It was agreed that prices to Australia and New Zealand were to be determined by the New York price, and frequent discussions occurred among producers with regard to the base price and differentials thereon. Upon the expiration of Seven Suppliers Agreement in 1948, 6 of the companies originally party to the arrangement organized Overseas Newsprint Co., a sales company, designed to make sales to Australia. Organizers of the Overseas Newsprint Co. were of "the opinion * * * that there should be one price only in Australia * * *."

An "overseas section of the Canadian group," consisting at one time of representatives from St. Lawrence, Consolidated, Price Bros., and International as well as Bowaters of Newfoundland discussed policies to be adopted for the Indian market in 1942, and Mr. Doane of International was one of those selected to draw up a proposed plan for that area. The proper procedure to be followed by newsprint sellers in India, according to the sentiments expressed by the head of one of those newsprint concerns whose representative attended the meeting, was as follows:

> I do feel that if anything is to come of this Indian business in the future and mills are to build up good will and put themselves in a position to resist Scandinavian infiltration after the war, they must take a strong line, get their 5-year contracts fixed up with the best newspapers in the way that they have been fixed

[49] Hearings before Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), serial 14, pt. 6-B, p. 231.

up in other British overseas dominions, and make the small fry who are not be to trusted pay through the nose. It would probably be a good thing if some of them were put out of business altogether.[50]

In 1941, a proposed plan to divide South American sales among newsprint producers was discussed by officials of the International Paper Co. and the Newsprint Association of Canada. The Latin American plan, if adopted, would have divided the markets of South and Central America, Mexico, Cuba, British West Indies, and other Caribbean islands as follows:

	Percent
International	22. 34
Consolidated	18. 53
Price Bros	45. 01
St. Lawrence	14. 12

Coordinating many of the agreements with regard to foreign markets with respect to prices and quotas has been the Newsprint Association of Canada. Charles Vining, president of the association from 1934 to 1946 and chairman of the executive committee until 1952, was trustee of the Seven Suppliers Agreement, previously adverted to, and representatives of the association were present at meetings of those party to the arrangement. The Newsprint Association of Canada, known by its cable address, "NEMAC," was recognized by those in the industry as "expounding export prices and conditions of sale." "NEMAC," once wrote a Scandinavian emissary, "has set up for itself the general principle of caring for the common interest of the industry through domestic contacts, and leaves no doubt but that the association outside of this is concerned with price building and the division of orders, depending upon the rules under which the prices are fixed."

A discussion of pricing agreements in the field of newsprint would not be complete without mention of the Scandinavian newsprint cartel, otherwise known as Scannews. Consisting of newsprint manufacturers in Finland, Sweden, and Norway, Scannews' principal interests lay in the field of price fixing and production and marketing quotas. As this organization was described to the subcommittee by the Department of State,

> In 1935 newsprint manufacturers formed a Scandinavian-Finnish organization concerned with export markets. As mentioned above, a publication of the Finnish Paper Mills Association reported that Scannews fixed prices, limited production, and divided markets. However, with the outbreak of World War II these arrangements were discontinued. At the present time our reports indicate that the organization is concerned with pricing policy.[51]

Attempts were made in 1938 to effect an international arrangement between Scannews and those companies which were members of the Newsprint Association of Canada whereby sales to various markets of the world, including the United States, would be divided between the two organizations. Whether these negotiations ever reached actual fruition or whether subsequent agreements between these two newsprint organizations have been arrived at is not presently known to the subcommittee.

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[50] Cited in H. Rept. 505, pt. 1, 82d Cong., 1st sess. (1951) p. 101.
[51] Hearings, Subcommittee on Study of Monopoly Power, 81st Cong., 2d sess. (1950), serial 14, pt. 6–A, p. 1023.

B. PROGRAM OF THE SUBCOMMITTEE, 1952–53

The results of the subcommittee's investigations into the newsprint industry, coupled with the many economic factors previously outlined in detail, made it clear that the best solution to the problems of competition and newsprint shortages lay in measures to increase the productive capacity of the industry to assure consumers of an adequate supply of newsprint in the future. Recognizing the salutary effect which constructive congressional action could have in implementing such steps, the subcommittee directed its efforts toward adopting a program which would result in encouraging private industry to expand productive facilities and assisting industry in overcoming obstacles which in the past had prevented or hindered the addition of new capacity.

1. Cooperation of Department of Commerce

It was essential, in formulating a program such as that contemplated by the subcommittee, that technical aid and assistance be obtained from those acquainted with the complicated economics of newsprint production, supply, and distribution. Accordingly, the subcommittee requested that the Department of Commerce cooperate with it in achieving its broad objectives. Jointly, the Department and the subcommittee have worked together along the general lines of a program whose principles were set forth by the subcommittee in its report issued shortly after the project was undertaken.[52] As described in the report, the following are the salient features of the joint undertaking of the subcommittee and the Department of Commerce:

1. The Department of Commerce will, on behalf of the Government, explore the obstacles which have thus far militated against additional newsprint expansion in the United States.
2. The Department will consult with present producers in the field as well as with potential producers, including producers seeking to enter newsprint production via new techniques and processes such as bagasse, hardwoods, etc., with a view to obtaining new newsprint facilities which will fulfill our expansion goals.
3. In order to obtain accurate scientific and technological data upon which to appraise the value of new techniques and processes, the Department will obtain the cooperation of the Bureau of Standards and other appropriate laboratories to make definitive tests which may then provide a sound basis for future policy decisions regarding these technical innovations.
4. The Department of Commerce will, at the same time, discuss with publishers and representatives of publishers' groups to obtain and coordinate whatever aid and assistance the latter are able to proffer in expanding domestic newsprint production.
5. The Department of Commerce will likewise confer and coordinate its efforts with the activities of other Government agencies which may be concerned with the various aspects of obtaining new production such as financing, priorities, amortization, etc.

It should be mentioned at this time that the cooperation of the Department of Commerce with the subcommittee has been of inestimable value to it in attaining the objectives of its program. Not only has the Department willingly assumed every undertaking requested of it by the subcommittee, but in its fulfillment of the obligations incurred, it has performed work of outstanding character and of extremely high caliber. The subcommittee has been immeasurably assisted by the contributions of the Department, particularly the industrial development staff which has been responsible for carrying

[52] House Rept. 505, pt. 3, 82d Cong., 2d sess. (1952), p. 4.

on this project, and wishes gratefully to acknowledge this fact. Some indication of the extent of the Department's work in this regard may be obtained from the following summary of its activities which appears in its first progress report to the subcommittee:

SUMMARY OF ACTIVITIES

During this initial period our activity has been divided into three main parts:

A. Consulting with private industry and Government agencies to determine the extent of expansion of newsprint production already planned or under way in the United States, and obtaining the viewpoints of private industry and Government agencies as to the obstacles impeding further expansion at this time.

B. Surveying the status of research, development, and technology in the United States and abroad as to the utilization of raw materials (including sugarcane bagasse, hardwoods, and wastepaper) not now used to a significant extent in the manufacture of newsprint.

C. Conducting an independent investigation as to the feasibility of making satisfactory newsprint from sugarcane bagasse on a pilot scale by already existing processes, and studying the economic considerations affecting the use of bagasse as a raw material for newsprint production.

The following specific activities are indicative of our general approach in carrying out the initial phase of the program.

1. Formed an interagency advisory group under the sponsorship of the Department of Commerce to coordinate views and studies of the executive branch in connection with expansion of newsprint production.

2. Convened, under the auspices of the National Production Authority, two industry meetings: (*a*) An industry advisory conference of all existing newsprint producers in the United States, plus three prospective producers; and (*b*) A special meeting of the Newspaper Industry Advisory Committee consisting of representative newspaper publishers in the United States.

The purpose of both of these meetings was to obtain the views and judgments of private industry with respect to factors affecting expansion of newsprint production.

3. Conducted trials at the pilot paper mill of the National Bureau of Standards of the Department of Commerce, involving (*a*) the manufacture of newsprint from bagasse on a pilot scale by various processes, and (*b*) exhaustive physical testing of such newsprint in comparison with standard newsprint.

4. Arranged for and completed the performance of tests by the United States Government Printing Office, for evaluating the printability of newsprint papers manufactured from bagasse in comparison with the printing quality of standard newsprint. Also arranged for printing a sample issue of the Congressional Record on newsprint made from bagasse.

5. Convened a special panel of newsprint executives of leading newspapers to judge and evaluate the acceptability of newsprint samples made from bagasse in comparison with various samples of standard newsprint.

6. Arranged for and obtained special area studies as to supply availabilities and price considerations for bagasse originating in the United States, Hawaii, and Cuba.

7. Arranged for and obtained special economic and technical studies by the Forest Service concerning (*a*) availability of timber supplies for expanded production of newsprint, and (*b*) possibilities of utilizing hardwoods and wastepaper in the manufacture of newsprint.

8. Organized and dispatched a special Mutual Security Agency-Department of Commerce mission to study at first hand European developments in utilizing hardwoods in the manufacture of newsprint, with particular emphasis upon the technology and economics of the newsprint industry in Italy, where most of the timber going into newsprint consists of hardwoods.

9. Conferred with prospective producers actively interested in using hardwoods and waste paper for newsprint manufacture in the United States.

10. Compiled and reviewed data concerning availability of timber in Alaska for newsprint production and studied economic conditions and Government policies affecting feasibility of such production.

Initial emphasis by the subcommittee and the Department of Commerce has been upon the development of new sources of raw

material for the manufacture of newsprint. The use of the words "new sources of raw material" is designed to be fairly inclusive, as the program is equally concerned with encouraging the commercial utilization of so-called waste products such as sugarcane wastes (bagasse) and straw, as well as the use of such neglected species of timber as hardwoods in place of spruce and other softwoods presently comprising the bulk of newsprint composition. The designation new sources of raw materials also embraces the deinking of waste papers for reuse as newsprint.

Also of importance in the program of the Department of Commerce and the subcommittee has been the development of new areas of softwood timber supplies for newsprint manufacture. The scope of this aspect of the joint project includes the potentiality of newsprint production in Alaska where an abundance of timber now stands in the Tongass National Forest.

The principal attention of the subcommittee, in its work with the Department of Commerce, has been directed toward the expansion of newsprint capacity in the United States or its Territories. This has been done not with the idea in mind of making the country self-sufficient with respect to newsprint, but because additional production of newsprint is so essential, from any source, that the subcommittee believes no efforts should be spared to encourage private enterprise in enlarging domestic capacity of newsprint within the area of the subcommittee's jurisdiction. This is doubly true when it is recognized that it is the publishers and the free press in this country which will suffer from any future shortages of newsprint. The subcommittee considers additional economic newsprint production highly desirable whether in Canada, the United States, or other nations of the world. It believes further that within the United States and its Territories there exist substantial untapped sources of raw materials which, with the availability of technological knowledge and proper encouragement, private industry will be willing to convert into newsprint.

2. Use of bagasse in the manufacture of newsprint

a. Previous experience with bagasse.—The subcommittee believes that in the development of new sources of raw materials for the manufacture of newsprint lies one of the most promising solutions to the newsprint probelem. Such materials may provide a ready answer to the question of where additional newsprint expansion can occur in view of the limited forest potential of the United States, and, indeed, of the whole world. Not only does the use of such materials constitute no further drain upon our diminishing timber areas but, if such materials are utilized to their greatest potential, our forest resources may actually be released for other industrial uses or for purposes of conservation. Furthermore, it is in the interest of economy and efficiency to find sound economic uses for materials which would otherwise be wasted.

In many instances, it may be possible that the use of these materials, many of which are presently of little if any economic value, may substantially reduce newsprint costs. Lower prices at profitable levels may result therefrom, thus supplying a partial resolution of the price-production dilemma which has been discussed before. These factors, among others, prompted the subcommittee to direct its initial efforts

at determining the economic feasibility of the utilization of bagasse (sugarcane wastes) as a raw material for the manufacture of newsprint.

Proposals for converting bagasse into paper products were suggested as early as 1838, and the experimental use of paper made from bagasse occurred in the 1840's and 1850's. During the succeeding years, a number of commercial attempts to produce paper products from bagasse met with varying degrees of success. A plant in Louisiana producing pressboard from bagasse operated for about 2½ years commencing in 1907 before it went out of business. Beginning in 1908, a mill in Rio de Janeiro, Brazil, produced bagasse paper at the rate of 1 ton of paper a day for 3 years, and in 1911 a plant producing paper from a mixture of bamboo and bagasse was started in Java. Other efforts to convert bagasse into pulp and paper products have been made in such countries as Cuba where a mill produced dissolving pulp from bagasse by the De la Roza process in 1928, and in England where a pilot plant, built in 1939, still produces about 5 tons of bleached pulp per day from straw, bagasse, and other fibers.

The first successful commercial use of bagasse may be credited to the Celotex Corp. which was formed in 1920 to produce board from sugarcane fiber for commercial purposes. Today, the operations of this company are extensive, and in its conversion of bagasse to paperboard it consumes approximately one-third of the bagasse produced annually in the State of Louisiana.

Despite the attention devoted in the past to the production of pulp and paper products from bagasse, both on an experimental and commercial basis, it is significant that although there had been many positive indications that bagasse would be suitable for newsprint production, prior to the launching of the subcommittee's program, newsprint comparable in all respects to standard newsprint paper had yet to be derived from bagasse. In its report on the newsprint industry submitted in 1951, the subcommittee had concluded after its preliminary studies that "Perhaps one of the most promising replacements for woodpulp in the manufacture of newsprint is pulp derived from the wastes of sugarcane, commonly called bagasse." [53] A Senate subcommittee, only a short time later, had also reached the conclusion that production of newsprint from bagasse "is practical and awaits only adequate financing for successful operation on a large scale." [54]

Newsprint derived from bagasse had also been used in the publication of editions of a number of prominent papers with promising results. In January of 1950, a special edition of the 100-year-old Holyoke Transcript-Telegram in Holyoke, Mass., was run on bagasse newsprint. The Savannah News made a trial run with newsprint produced from bagasse on May 19, 1952, while on June 6 of the same year, the New York Journal of Commerce printed a sheet of its regular press run on newsprint made from bagasse pulp.

Preliminary reports of a scientific nature on the suitability of bagasse pulp in newsprint manufacture were also favorable. G. E. Hilbert, Chief, Bureau of Agricultural and Industrial Chemistry of the Department of Agriculture reported to a Senate subcommittee in 1952 that it would be possible to utilize bagasse pulp in combination with other pulps in newsprint manufacture.[55]

[53] H. Rept. 505, pt. 1, 82d Cong., 1st sess. (1951), p. 19.
[54] S. Rept. 1404, 82d Cong., 2d sess. (1952), p. 229.
[55] Id., p. 239.

In August 1951, G. H. Chidester, Chief of the Pulp and Paper Division of the Forest Products Laboratory in Madison, Wis., reported on a laboratory run of bagasse newsprint made by the De la Roza process indicating that the paper made in the trial "had physical properties approaching closely those of standard newsprint." [56] Results of the Forest Products Laboratory tests showed that newsprint produced wholly from bagasse was stronger and whiter than so-called standard newsprint paper although the opacity was slightly lower. The latter defect it was felt could be remedied and that "with minor adjustments the standard physical porperties of newsprint could be attained."

b. Obstacles to the development of bagasse newsprint.—Despite the promising outlook for the development of an additional source of newsprint from the wastes of sugarcane, there were many obstacles to be overcome before newsprint manufactured from bagasse could become a reality. In the first place, no attempt had been made to ascertain with scientific precision the extent to which bagasse could fulfill all those qualifications which would be requisite if newsprint comparable to standard newsprint paper were to result therefrom. While certain experiments had been conducted by reputable agencies, it had yet to be determined that bagasse newsprint was equal in all respects to newsprint produced from woodpulps. It was therefore essential that a comprehensive analysis of the suitability of bagasse for newsprint manufacture be conducted by an authoritative body.

c. Results of bagasse newsprint tests.—In order to determine whether satisfactory newsprint could be produced under existing processes utilizing 100 percent whole bagasse, the Department of Commerce, through its Bureau of Standards, conducted a number of production trials on a pilot-plant basis involving the manufacture of paper from bagasse. To assure that no technological innovations would be overlooked, the Department, in advance of its trials, invited known proprietors of patented processes for manufacturing newsprint from bagasse to permit their processes to be run in the Bureau of Standards pilot paper mill. Those cooperating in these test runs were:
overlooked, the Department, in advance of its experiments, invited known proprietors of patented processes for manufacturing newsprint from bagasse to permit their pulp and paper to be tested in the Bureau of Standards pilot paper mill. Those cooperating in these test runs were:

De La Roza Corp.: Joaquin De La Roza, Sr., president, 120 Wall Street, New York, N. Y.
Valite Corp.: W. J. Amoss, executive vice president, Whitney Building, New Orleans, La.
Chemcel Corp.: Frank Hayes, vice president, 4538 West 130th Street, Cleveland, Ohio.
H. L. Horn, 135 Front Street, New York, N. Y.

The tests of bagasse paper were conducted entirely under the supervision of the Department of Commerce, although representatives of the proprietors were present in an advisory capacity while their processes were being run. For purposes of comparison, tests were also conducted on paper made from whole bagasse using a kraft digestion process, paper produced from depithed bagasse, and paper made from lobolly pine chips. The trials were held at the laboratory of the Bureau of Standards where a pilot plant for producing paper has been

[56] Id., p. 229.

in place for many years. Additional equipment, suitable to meet the requirements of the various processes observed, was supplied by the Bureau of Standards, oftentimes by the employment of considerable skill and ingenuity.

(1) *Strength of bagasse newsprint.*—It was found by the Department of Commerce that bagasse newsprint is as strong and in many cases much stronger than standard newsprint. All of the processes tested produced newsprint equivalent or superior in strength to standard newsprint paper. The additional strength inherent in bagasse paper is highly desirable from the point of view of folding endurance and resistance to tear. Following is a comparison of the strength of bagasse paper with standard newsprint papers, including those used by the New York Times, the Washington Post, and the Washington Evening Star.

Summary of strength of papers

	Standard newsprint	Paper from bagasse
Folding endurance:		
Machine direction	4–5	7–45
Cross direction	1	5–18
Tensile strength:		
Machine direction	2.2–2.4	2.7–4.1
Cross direction	1.2–1.3	1.8–2.6
Tearing strength:		
Machine direction	19	19–25
Cross direction	22–23	18–43
Bursting strength	7	18–13.5

(2) *Opacity of bagasse newsprint.*—Opacity is an important quality of newsprint inasmuch as in newspaper publication it is necessary to print on both sides of the paper. Excess show-through will interfere with legibility and appearance and render any paper unsuitable for use as newsprint.

According to the Department of Commerce, a paper with opacity of less than 88 may be considered unsatisfactory for newsprint, while that with opacity exceeding 90 is unnecessarily good, since under normal circumstances commercial newsprint has an opacity of approximately 90. From the results of the tests on bagasse newsprint with respect to opacity, it appeared that paper of the De la Roza Corp. had an opacity of 92 compared with 90 for standard newsprint paper.

While its inability to fulfill the opacity requisites of newsprint was one of the objections which had previously been raised to the utilization of bagasse as a newsprint source, it can be seen that the paper produced by the De la Roza process was not only acceptable with respect to opacity but, as the Department of Commerce concluded, "is a premium product in this respect." The Department also observed that improvement in opacity of the Valite paper should present no great problems.

(3) *Printability of bagasse newsprint.*—Although a newsprint paper may satisfy physical and chemical requirements, it cannot expect to be accepted by publishers for their newspapers if it is unsuitable for printing. The ability to take ink, the absence of strike-through, and

the clarity of impression, all these are important factors in determining the adequacy of a paper for printing.

A sound indication of the ability of bagasse newsprint to withstand the rigors of commercial printing was furnished by the New York Journal of Commerce which had utilized bagasse newsprint on two separate occasions in the printing of its editions. The favorable reports of this publication with respect to bagasse are contained in the letter which is printed below in full.

THE JOURNAL OF COMMERCE,
New York, September 11, 1952.

Mr. JESSE J. FRIEDMAN,
The Department of Commerce,
Washington, D. C.

DEAR MR. FRIEDMAN: We have used the bagasse paper twice in our regular editions of the New York Journal of Commerce and find it to be very good paper. It has more tensile strength with less chance of paper breaks than the ordinary newsprint.

On our regular newsprint we use a standard newspaper ink with an oil base that sinks immediately into the paper. However, we find that this ink is not suitable to the bagasse paper as this has a hard finish and will cause offset on the proceeding paper as it goes through the press.

To overcome this a new type of ink would have to be made up which may cause trouble if it is not properly mixed. You cannot put any drier in this ink because it will dry on the rollers overnight, and it would be too expensive and practically impossible to wash the rollers on these large newspaper units.

There are some presses that use the ink fountain with pumps that spread the ink on the rollers for distribution. Therefore, the ink that will have to be used on this paper would have to have enough flow so that you could spread it. We find that this is the only drawback as far as newspapers are concerned, and this can be very easily remedied by any standard ink company.

The reproduction of halftone cuts is excellent and all type shows up very clearly.

Hoping that this answers all of your queries, I am,
Sincerely yours,

E. D. MANNING,
Production Manager.

The Department of Commerce also submitted samples of bagasse newsprint to the Government Printing Office for tests, and the Government Printing Office submitted the following favorable conclusions with respect to the printability of the sample paper produced by the De La Roza process:

Our tests show that sample B (0002) is suited for newsprint purposes with standard news ink, but even better results have been obtained with ink which is heavier than the standard news ink.

The subcommittee also requested that the Government Printing Office run sample copies of the Congressional Record on bagasse newsprint. These copies, printed from a roll of bagasse newsprint produced by the Bureau of Standards, were run on a flat press and appeared to the subcommittee to be very readable editions of that publication.

(4) *Pliability of bagasse newsprint.*—It is difficult to assess scientifically the pliability of newsprint since it encompasses a number of psychological or sensory judgments not subject to exact measurement. Some indication of the pliability of bagasse papers was nevertheless highly desirable. The newsprint executives from a number of publishing organizations were therefore requested by the Department of

Commerce to rate unidentified sample newsprints, including standard newsprint papers as well as bagasse newsprint papers, with respect to pliability, embracing such factors as softness, flexibility, ease of folding, etc. These newspapers included:

1. Chronicle-Herald, Augusta, Ga.
2. Hearst Newspapers
3. Courier-Journal, Louisville, Ky.
4. Sun, Baltimore, Md.
5. News, Newark, N. J.
6. Herald, Miami, Fla.
7. Times-Herald, Washington, D. C.
8. Inquirer, Philadelphia, Pa.
9. Record-Observer, Centerville, Md.
10. Herald Tribune, New York

While no exceptional reliability can be attached to tests of this nature, it is significant to note that of the bagasse papers tested, the Chemcel paper was considered suitable for newspaper use by about 4 out of every 5 votes cast; the De la Roza paper by 2 out of every 3 votes cast; the Valite by 50 percent of the votes, and the Horn paper by 30 percent. The only factual conclusion which can be drawn from the above is that for most of the bagasse papers tested, the majority of publishers found them satisfactory for newsprint use with respect to the factor of pliability.

(5) *Economic considerations of bagasse newsprint.*—One of the most important questions arising, once it has been determined by its physical characteristics that newsprint produced from bagasse is suitable for publishing purposes, is whether production costs of utilizing bagasse pulp in place of woodpulp compare favorably with those for the manufacture of standard newsprint paper.

In converting whole bagasse to newsprint, approximately 1 ton of paper results from 2 tons of bagasse. Total cost of bagasse per ton in Louisiana is estimated at about $9. Freight charges add another $1 to $1.25 per ton to the costs of bagasse. Chemical costs are moderate. In the Bureau of Standards trials, such costs for the DeLa Roza process were estimated at $13.25 per ton, although it is estimated that these chemical costs can be reduced in commercial operation.

Excluding labor, overhead, and certain other current costs which could be easily ascertained, a comparison of production costs, utilizing selected major variables only, reveals that bagasse newsprint is as reasonable to produce, if not cheaper, than standard newsprint paper. This is very significant insofar as the possibility of future production is concerned and is highly encouraging to a potential bagasse industry in the United States as well as in other nations of the world.

The comparative costs of bagasse newsprint and those of standard newsprint paper, with respect to the major variable elements of cost, are indicated in the following table prepared by the Department of Commerce.

Approximate range of production costs per ton of newsprint; comparisons of selected major variables only

Item	Unit	Standard newsprint		Bagasse newsprint
		Groundwoodpulp portion	Chemical pulp portion	
Raw material:				
Wood:				
Quantity required per ton of groundwood or chemical pulp.	Cord	1.1	2.0	
Cost per cord (delivered, peeled, ready for processing).	Dollar	20–30	20–30	
Cost per ton of groundwood or chemical pulp.	do	22–33	40–60	
Bagasse:				
Quantity required per ton of newsprint.	Ton			1.9
Cost per ton (delivered, ready for processing).	Dollar			10–12
Cost per ton of newsprint	do			19–22.80
Electric power:				
Groundwood:				
Energy required per ton of pulp	Kilowatt-hour	1,200–1,300		
Cost per kilowatt-hour	Mil	3.5–7.5		
Cost of energy per ton of pulp	Dollar	4.20–9.75		
Chemical and bagasse, cost per ton of pulp	do		.50	.50
Steam, cost per ton of pulp	do		2.50–3.50	2.50–3.50
Chemicals:				
Pulping, cost per ton of newsprint	do		5.00	3.00
Bleach, cost per ton of newsprint	do		0–4.00	2.90
Furnish, cost per ton of newsprint	do	1.50	1.50	7.35
Total of selected variable costs:				
Indicated range	do	27.70–44.25	49.50–74.50	35.25–40.05
Weighted range (80 percent groundwood—20 percent chemical).	do	32.10–50.30		
Indicated average		41.20		37.65

NOTE.—Above costs are for selected major variables only, and do not include such other costs as finishing, labor, and overhead.

(6) *Conclusions from bagasse trials.*—The important tests conducted by the Department of Commerce with respect to newsprint manufactured out of bagasse have been described above. A summary of these and other conclusions of the Department indicate that it is technologically feasible to produce out of whole bagasse a newsprint satisfactory in all respects and superior in some for use as newsprint. Costs for the production of this paper compare favorably with those for manufacturing standard newsprint paper. Best results for newsprint production in the trials made at the Bureau of Standards were obtained by the De La Roza process, although Valite and other processes showed definite potentialities for commercial utilization. Not only can satisfactory newsprint be made from 100 percent bagasse pulp, but such pulp can also be used in a mix with wood and other pulps to produce newsprint. Because of its excellent quality, bagasse is also suitable for other types of paper, including higher grade papers. Raw bagasse can be stored over lengthy periods of time, thus assuring a constant and ready source of supply.

It must be recognized that the Department of Commerce experiments were conducted on a pilot plant basis, and it therefore does not necessarily follow that the same results, particularly with respect to manufacture and printing, will obtain in regular commercial operations. While accordingly it has not been demonstrated by actual performance that bagasse newsprint can be run at the high rate of speed attainable by modern commercial machines, there is nothing to indicate that bagasse would not prove as successful on a commercial basis as on a pilot plant scale. At least that is the opinion of persons

in the industry who are acquainted with present industrial requirements for running paper on high speed machines. Thus, A. G. Natwick, then Director, Pulp and Paperboard Division, National Production Authority, and formerly affiliated with the Crown Zellerbach Corp., responded as follows to a question as to whether running bagasse at regular mill speeds would be practicable in view of the results obtained by the Department of Commerce:

> The question is whether bagasse has strength enough? That is, is bagasse strong enough to be used in a commercial operation, in a newsprint mill? From the figures I have seen, compared to standard newsprint paper, the answer would be "Yes." [57]

Similarly, the flat press runs of bagasse newsprint at the Government Printing Office do not automatically augur the successful use of bagasse newsprint at economical press speeds on commercial printing equipment. Yet here again, difficulties would appear to be minimal. Bagasse paper has been successfully used in printing editions of a number of papers, and the results have been highly favorable. Thus, the New York Journal of Commerce reported to the Department of Commerce that: "We have used the bagasse paper twice in our regular editions of the New York Journal of Commerce and find it to be very good paper. It has more tensile strength with less chance of paper breaks than the ordinary newsprint." [58]

On the strength of all evidence available, therefore, it would appear that the utilization of bagasse for manufacture of newsprint is ready for commercial development, and private industry is already proceeding on this basis.

d. Commercial potentialities for bagasse.—Assuming the suitability of bagasse for use either entirely or in conjunction with other pulps in the manufacture of newsprint, it is important to consider the significance of this fact not only insofar as it may affect the future newsprint supply of the United States but also as the extent to which it may contain potentialities for the industrial development of underdeveloped areas of the world.

It is estimated that in the United States alone about 750,000 to 900,000 tons of sugarcane bagasse (dry basis) are produced annually. By far the larger share of this is grown in the State of Louisiana, although a goodly portion is raised in Florida. About 250,000 tons of the annual bagasse output is presently consumed in board production, but most of the balance is burned either as fuel or in order to dispose of it with convenience. It is estimated that the annual production of bagasse in the United States is sufficient to support at least two economic mills producing newsprint from bagasse.

In Hawaii, about 1 million tons of dry bagasse are produced on an annual basis, with approximately 220,000 coming from the island of Maui, 405,000 from the island of Hawaii, 217,000 from Oahu, and 218,000 from Kauai. Theoretically, this is enough bagasse to manufacture about 500,000 tons of newsprint per year should all of it be devoted to newsprint production. Since all but 50,000 tons of Hawaiian bagasse is consumed as fuel on the plantations themselves, the

[57] Hearings before the Antitrust Subcommittee of the Committee on the Judiciary, 82d Cong., 2d sess. (1952), serial No. 19, p. 10.

[58] Cited in Study of Newsprint Expansion, A Progress Report of the Department of Commerce to Subcommittee No. 5 of the Committee on the Judiciary, 82d Cong., 2d sess. (1952), p. 38, and printed in full, supra, p. 31.

cost of the bagasse is estimated at the replacement value of fuel which comes to about $6.25 per ton. The cane-harvesting season in Hawaii extends from 9 to 10 months of the year, thus substantially reducing costs of baling and storage for paper-mill use.

Cuba is another area rich in bagasse resources. About 5,630,000 tons of bagasse were grown throughout Cuba in the year 1950 and 6,372,000 in 1951. About one-half of the annual bagasse production in Cuba originates in the two eastern Provinces of Oriente and Camagüey. While the sugar mills consume bagasse as a fuel, there is a large annual surplus of bagasse which is now burned as waste and which could otherwise be used in newsprint production. To the extent that bagasse now used as fuel were diverted to paper use, the fuel would have to be replaced, probably by imported oil.

Large quantities of bagasse are also available in other Latin American countries, including Brazil, Mexico, and the Dominican Republic. In Puerto Rico, with an annual production of over 1,300,000 tons of bagasse (dry basis), the outlook is highly encouraging for a possible pulp and paper industry based upon bagasse.

While naturally the effective utilization of bagasse in the nations named above as well as in other countries of the world depends upon a number of economic conditions which vary locally, it is significant to note the tremendous potential of bagasse. Annual production of bagasse on a worldwide basis runs to about 25 million tons. If it were economically feasible to utilize all of it in the manufacture of newsprint, it would theoretically be possible to produce more than 12 million tons newsprint on a yearly basis. When it is realized that the world's total production of newsprint during 1952 was 10,656,000 tons, some idea of the potential significance of bagasse in directly and indirectly augmenting our newsprint supplies may be obtained.

World availability of sugarcane bagasse for all purposes (bone-dry basis—Estimated on the basis of centrifugal cane-sugar production)

[Short tons]

Continent and country	1950	1951
United States and Territories:		
Louisiana	750,000	500,000
Florida	125,000	115,000
Hawaii	1,000,000	1,100,000
Puerto Rico	1,300,000	1,400,000
Virgin Islands of the United States	7,000	12,000
Total, United States and Territories	3,182,000	3,127,000
Other North American and Central American countries:		
British Honduras	2,000	3,000
Costa Rica	24,000	24,000
El Salvador	21,000	31,000
Guatemala	29,000	33,000
Honduras	5,000	7,000
Mexico	800,000	850,000
Nicaragua	30,000	32,000
Panama	19,000	22,000
Antigua	21,000	36,000
Barbados	184,000	170,000
Cuba	6,500,000	8,000,000
Dominican Republic	600,000	700,000
Granada	1,000	1,000
Guadeloupe	85,000	95,000
Haiti	65,000	65,000
Jamaica	300,000	315,000
Martinique	60,000	50,000
St. Kitts	50,000	50,000

World availability of sugarcane bagasse for all purposes (bone-dry basis—Estimated on the basis of centrifugal cane-sugar production)—Continued

[Short tons]

Continent and country	1950	1951
Other North American and Central American countries—Continued		
St. Lucia and St. Vincent	14,000	14,000
Trinidad	160,000	170,000
Subtotal	8,970,000	10,668,000
Total, North and Central American countries, including United States and Territories	12,152,000	13,795,000
Asia and Far East:		
Burma	5,000	16,000
China (mainland)	400,000	400,000
Formosa	410,000	620,000
French Indochina	7,000	6,000
India	1,500,000	1,600,000
Indonesia	310,000	480,000
Pakistan	60,000	100,000
Philippines	950,000	1,100,000
Thailand	35,000	35,000
Total, Asia	3,677,000	4,357,000
South America:		
Argentina	720,000	760,000
Bolivia	3,000	3,000
Brazil	1,800,000	1,900,000
British Guiana	250,000	260,000
Colombia	220,000	250,000
Ecuador	61,000	60,000
Paraguay	26,000	33,000
Peru	525,000	525,000
Surinam	4,000	4,000
Uruguay	8,000	14,000
Venezuela	53,000	55,000
Total, South America	3,670,000	3,864,000
Africa:		
Belgian Congo	15,000	17,000
British East Africa	90,000	90,000
Egypt	215,000	220,000
Madagascar	15,000	20,000
Madeira Islands and Azores	10,000	10,000
Mauritius	510,000	540,000
Mozambique	105,000	105,000
Angola	60,000	55,000
Reunion	120,000	140,000
Union of South Africa	700,000	550,000
Total, Africa	1,840,000	1,747,000
Oceania:		
Australia	1,100,000	900,000
Fiji	135,000	130,000
Total, Oceania	1,235,000	1,030,000
World total	22,574,000	24,793,000

Source: Mutual Security Administration.

(e) *Recent developments in bagasse.*—The work of the subcommittee and the Department of Commerce in the field of bagasse has stimulated worldwide interest in bagasse as a possible substitute for woodpulp in the manufacture of newsprint. From Argentina, the Dominican Republic, Cuba, India, South Africa and Mexico come reports of interest in newsprint producing facilities utilizing bagasse. In the United States, a certificate for accelerated tax amortization has been granted to the Valentine Pulp & Paper Co. as of February 27, 1953, for the construction of a small newsprint mill near Lockport, La., which would utilize bagasse. Costing about $2.6 million, the

capacity of this mill will be about 50 tons a day. The mill is now under construction and is expected to be completed early in 1954.

Thus, it can be seen that great strides have already been taken in the launching of a newsprint industry based upon bagasse. As familiarity with the handling and uses of bagasse increases and technological knowledge develops, the industrial horizons for bagasse will continue to expand.

3. *Other promising sources for newsprint.*—Although the subcommittee devoted its initial attention to bagasse, it also included in its program with the Department of Commerce the consideration of other new materials for newsprint manufacture, the development of the virgin timber areas of Alaska for the production of newsprint, and the investigation of potential forest areas of the United States capable of furnishing additional woodpulp for newsprint. Work on these further portions of the program are still under way, but they may be briefly noted in this report.

a. Hardwoods.—While the continued depletion of our softwood forest resources has caused considerable consternation, it is worthwhile to note that, according to the most recent comprehensive survey of the Nation's forest resources, our annual growth of hardwoods exceeds the annual drain by 20 percent. Present composition of newsprint paper manufactured in North America is almost 100 percent softwood, with spruce, firs, and hemlock being the most preferred species along with substantial amounts of southern pine pulped by United States newsprint mills located in the South. When it is realized that there is a surplus of hardwoods in the United States, it can readily be seen how the successful utilization of hardwoods in the manufacture of newsprint would not only be a boon to the conservation of our natural resources but would permit additional expansion of domestic newsprint producing facilities as well.

A number of developments have occurred with hardwoods which augur well for the future use of pulps made therefrom in newsprint. Semichemical processes utilizing both chemical and mechanical treatment methods of wood, have proven successful in producing samples of newsprint. Perhaps the most notable experiments with hardwoods have been conducted by the New York State College of Forestry where the technique for the production of "chemigroundwood" pulps from hardwoods has been pioneered and developed. Successful results have also been achieved with semichemical pulps by the Forest Products Laboratory. Based upon its investigations, the Forest Service has recently concluded that:

> * * * hardwood pulps, including semichemical and ground woodpulp, may successfully make up as high as 80 percent of the total fiber content of newsprint.[59]

The Forest Service recognized, however, that with respect to the apparent success of hardwood processes in the manufacture of newsprint, "* * * large-scale commercial trials are needed to confirm these results" [60]

There has been some commercial experimentation with the use of hardwoods for newsprint with generally favorable results. It is

[59] S. Rept. 1404, 82d Cong., 2d sess. (1952), p. 217.
[60] Ibid.

reported that the Ontario Paper Co. consumes in their newsprint mill at Thorold, Ontario, about 12 percent poplar during 8 months of the year, with a satisfactory newsprint resulting therefrom.[61] Great Northern Paper Co. is spending $45 million to erect a plant at East Millinocket, Maine, to produce chemigroundwood pulp and newsprint from hardwoods which it reports can be done successfully on a commercial basis.[62] According to a recent article, "D. W. Ambridge, president, Abitibi Power and Paper Co., Ltd., has said that Abitibi also is doing much research on sulphite pulping of all species of hardwoods * * *,"[63] and similar research is being carried on by Price Bros. and other Canadian concerns. A recent issue of the Paper Trade Journal (July 24, 1953) reports significant developments by Richmond Pulp & Paper Co. of Canada, Ltd., in semichemical pulping of hardwoods for newsprint.

In Italy, the use of hardwoods in the manufacture of newsprint has been extensive. Poplar in that country is employed on a commercial scale in the production of woodpulp because of the marked absence of abundant softwood resources throughout the country.

It is clear from the above that while much is still to be done with respect to hardwoods, many significant steps have already been taken toward making the commercial manufacture of newsprint from hardwoods a reality.

b. Wheat straw.—One of the most promising yet often overlooked sources for additional production of newsprint in the United States is wheat straw. About 95 million tons of this material are produced each year on the Nation's farms, only half of which is needed either in agriculture or industry. Surveys of straw potential have been made in several States, including Colorado, Kansas, and Nebraska, and these studies indicate that at least two prospective sites for a newsprint mill are available in each of these jurisdictions. Other straw resources are available in New Jersey, Texas, Oklahoma, the Dakotas, and Montana which could be devoted to newsprint manufacture.

Important findings with respect to utilizing straw pulps for newsprint have already been made by respectable scientific organizations. Over the last several years the Northern Regional Research Laboratory of the Department of Agriculture has conducted several successful experiments utilizing straw pulps for newsprint. The outcome of the Laboratory's experiences with straw pulps were recently described by the Department as follows:

> The first of these experiments was run at the request of the Ontario Paper Co., Thorold, Ontario, who manufacture the newsprint for the Chicago Tribune and the New York Daily News. They desired to determine, during the emergency immediately after the World War II in 1949 when the price of wood pulp was advancing so rapidly, if other raw materials besides pulpwood would be suitable as a supplement in newsprint manufacture. At that time a new chemical process for pulping straw had been developed by this Bureau which gave a higher yield of strong pulp than by previous methods, and this process was used for preparing the straw pulp on a commercial scale at the Ontario mill. This pulp, after screening, was given a mild bleaching treatment and was blended with the standard mixture of mechanical and spruce sulfite pulps to the extent of 17 to 20 percent of the total pulp used in making the paper. This blend was run on a large high-speed modern newsprint paper machine for 7 to 8 hours, producing from 35 to 40 tons of newsprint paper. No changes were required in the paper machine operation and the straw pulp was entirely satisfactory from the standpoint of manu-

[61] ANPA, Newsprint Bulletin No. 74—1952 (Oct. 16, 1952), p. 303.
[62] ANPA, Newsprint Bulletin No. 22—1953 (Apr. 27, 1953), p. 91; table, supra, p. 11.
[63] Ibid.

facturing operation. The paper so prepared was judged to be of somewhat better formation and smoother finish than standard newsprint. It was shipped to the Chicago Tribune and run into 163,000 copies of a 28-page edition without a single break on the presses. The printing characteristics of the paper were enough improved over the standard sheet so that it was possible to determine by inspection which paper contained the straw pulp. This run proves definitely that bleached straw pulp can replace all or most of the spruce sulfite pulp as the chemical, strength-conferring constituent in standard newsprint, when used with fresh mechanical ground wood.[64]

c. Deinking newsprint.—For many years it has been hoped that old waste newspapers could be re-used to produce newsprint by the simple expedient of deinking. Nevertheless, the physical difficulties inherent in removing the ink and still maintaining the properties of the resulting paper have been hard to overcome. Pioneering work in this field was done by Gary Paper Mills, Inc., of Gary, Ind., which recently operated a small newsprint mill for several years with a capacity of 12,000 tons of newsprint per year. The company, owned by a number of mid-western publishers, engaged in the actual production of newsprint for over 2 years and sold its product made by the deinking of waste papers to the 11 newspapers holding interests in the mill.

It is evident that there is still much work to be done in this area. But the results may be expected to be exceptionally gratifying once certain technical obstacles have been overcome, and deinked papers could well be one of the principal solutions to the newsprint problem in the future.

d. Alaska.—It has long been recognized that in the Territory of Alaska there exists a vast potential for increased newsprint production in the magnificant and untouched timberlands lying principally within the Tongass National Forest. Here stand approximately 78 billion board-feet of timber comprised chiefly of western hemlock and spruce, softwoods ideal for newsprint manufacture. Altogether, the Tongass National Forest contains enough timber to support from 4 to 5 newsprint mills, each with a capacity of 500 to 600 tons per day.

While Alaska also has sources for the development of hydroelectric power, potential plant sites, and an abundance of fresh water, all factors of importance in the development of a newsprint industry, expansion of facilities in Alaska has been hindered by virtue of high labor costs and shipping costs from the Territory to the United States. The importance of these factors has decreased yearly, however. A major pulp plant in Alaska operated by the Ketchikan Pulp Co. is scheduled to go into production as of July 1, 1954. It will have a capacity of approximately 350 tons of dissolving pulp per day and will have cost about $40 million to erect. The company has a 50-year contract for timber in the national forest that will yield it about 8 billion board feet, or 10 percent of the national forest timber in Alaska.

Interest in newsprint producing facilities in Alaska has been expressed by the Georgia Pacific Plywood Co. which has just been granted a certificate of necessity and accelerated tax amortization for a $54 million newsprint mill of 155,000 tons annual capacity to be located near Juneau.[65] It can thus be seen that the obstacles to the development of Alaskan timber resources are gradually being overcome and that the successful production of pulp and paper products in the Territory is now much more than an eventuality. Nevertheless, considerable work remains to be done in launching a successful newsprint industry in this part of North America.

[64] S. Rept. 1404, 82d Cong., 2d sess. (1952), p. 238.
[65] Release, Office of Defense Mobilization, September 8, 1953.

e. Forest areas of the United States.—It is important, in the search for additional sources for newsprint production, that no prospective area which might prove rewarding be overlooked. Suggestion has been made by industry representatives that the Olympic National Park contains a wealth of timber resources which could substantially add to the Nation's newsprint producing potential without endangering the recreational value of the location in question. Thus, at a meeting of the Newspaper Industry Advisory Committee which the NPA held on June 26, 1952:

> A committee spokesman ventured the opinion that the Government would best encourage the expansion of newsprint production in the United States by making more readily available the raw materials necessary for that production. He called attention to two areas in the Northwest—one on the Olympic Peninsula, the other the Tongass National Forest in Alaska—he said the former could, under proper safeguards to assure the perpetuation of the natural resources, provide a perpetual supply of raw material. The development of these raw material sources would assure a supply for the production of 800,000 tons of newsprint a year, he estimated.
>
> The timberlands in the Olympic National Park, at present inaccessible for any public purpose, would benefit from proper logging operations, the committee member emphasized.[86]

In view of the possibility of additional timber supplies within the Olympic National Park, there should be ascertained the reasons for the existing boundaries of the park, the factors underlying the recent additions to the park, and the potential newsprint production which could be obtained from the park without depleting our natural resources or injuring the recreational value of the area. Emphasis should be placed upon the ability of this area to support a new independent newsprint mill in the Northwest.

Attention should not only be confined to the Olympic Park region but should also be focused upon increasing our timber supplies by more intensive management of the national forests. Much of the potential of these areas is as yet to be availed of. Many miles of roads would bring access to virgin timber areas or areas in which diseased or otherwise wasted timber is being allowed to go unused. Obtaining the maximum economic benefit from our existing resources is just as important to a sound conservation program as is developing new sources for newsprint production.

[86] Minutes, Newspaper Industry Advisory Committee, National Production Authority, June 26, 1952.

FINDINGS AND RECOMMENDATIONS

Newsprint is one of the most important commodities in the American way of life. It at once supplies the basic raw material for keeping our Nation informed of local and worldwide events, transmitting ofttimes conflicting ideas and concepts to the arena of public opinion, and stimulating the national demand for the manufacture of articles upon which our mass production methods depend. To the democratic process it is an essential element the lack of which would cause the constitutional safeguards of freedom of speech and press to diminish significantly in importance.

For more than a decade, there has been, with intermittent periods of relief, a continuing newsprint shortage both in this country and abroad. The extent, if any, to which this shortage has caused papers to cease publication, curtail editions, merge with other newspapers, or be unable to commence publication, is difficult to ascertain. But congressional investigation after congressional investigation has reaffirmed the conclusion that tight supplies of newsprint recurring over a period of many years has worked a serious hardship upon newspapers throughout the world.

While prospects in 1953 for fairly adequate supplies of newsprint during the year are more favorable than they have been for many months, the time has not yet been reached where efforts to assure adequate supplies of newsprint can be in any way relaxed. Many factors qualify the balance of newsprint supply with demand even at this time, among them being the price of newsprint paper, governmental regulations in some areas restricting newsprint consumption, and exchange and currency difficulties preventing newsprint purchases in dollars.

All estimates of newsprint demand in the future, both in the United States and abroad, indicate that the requirements for newsprint throughout the world will continue to increase, both over the long and near term. The American Newspaper Publishers Association, the President's Materials Policy Commission, and the Department of Commerce all foresee rising newsprint consumption in the United States now and in the next decade. Consumption in the rest of the world, now barely attaining pre-World War II levels, is bound to grow at an even greater rate. There must therefore be an assurance of adequate productive facilities capable of satisfying this constantly increasing demand for newsprint in the future.

Despite the need for continuing to increase newsprint production, there are many actual or potential obstacles to expansion of capacity in the industry. According to industry spokesmen, existing price levels do not make the production of newsprint relatively as attractive as the manufacture of other pulp and paper products. High capital costs for new mills and low rate of return on total investment are reported to have deterred venture capital in the newsprint industry. Depletion of essential forest areas together with the constant demand from other sources for wood and woodpulp products, limits poten-

tialities for growth in the industry. The need for continued and unremitting efforts to augment our present newsprint sources is therefore apparent.

The subcommittee has previously dwelt at length upon those factors in the newsprint industry affecting competition therein and their results upon the supply and price of newsprint (H. Rept. No. 505, pt. 1, 82d Cong., 1st sess. (1951)). It has no further comments to make upon this aspect of the newsprint problem at this time except to state that no evidence has been brought to its attention since the issuance of its prior report which would substantially alter the conclusions contained therein.

Perhaps the most effective method of solving the problem of competition in the newsprint industry, the problem of short supplies and recurring shortages of newsprint, and the problem of rising newsprint prices and repeated black market conditions, is to increase newsprint production. While the subcommittee believes that increased production in any area of the world, including Canada, Scandinavia, and other European countries would be desirable, it nevertheless recognizes that there are many factors which limit the possible expansion of newsprint capacity in these areas. Additional domestic production would also provide further safeguards for American publishers against industry practices beyond the effective reach of the laws of the United States. Accordingly, the subcommittee believes that primary efforts should be concentrated on increasing newsprint production in the Territories or within the continental boundaries of the United States.

Because of the limitations imposed by the annual drain upon the Nation's softwood forests, the most promising areas for additional newsprint production lie in the development of new techniques and processes for newsprint production and the discovery of alternative sources of pulps for newsprint manufacture. The successful commercial development of deinking papers on a widespread scale for reuse as newsprint would go far toward assuring an adequate supply of newsprint in the future. The ability to utilize hardwoods in place of softwoods in blends of pulp for newsprint would permit the enlarging of newsprint capacity in the United States as well as in other areas of the world. The economic conversion of waste products such as straw into pulp for newsprint would also be a long step forward in finding a solution to the need for additional sources for newsprint production.

The use of bagasse in the manufacture of newsprint must be dealt with realistically. Bagasse is today one of the most promising sources for additional newsprint production. It has been proven beyond successful contradiction that chemical pulp derived from bagasse, used by itself or in combination with other pulps, can produce a newsprint paper comparable in all respects and superior in some to standard newsprint paper. With regard to such factors as strength, opacity, printability, and pliability, bagasse is as satisfactory as standard newsprint paper. The strength of bagasse indicates that there would be no problem in running it on high-speed commercial machines and the New York Journal of Commerce has already used bagasse in the printing of its editions and has found it "very good paper." As the costs of bagasse newsprint production also compare most favorably with those for the production of standard newsprint,

it is evident that bagasse as a source for newsprint meets all the requirements for commercial development.

In the United States, sufficient quantities of bagasse are produced annually to support at least two economic newsprint mills in the South. Bagasse in Hawaii and Puerto Rico can furnish additional sources for expanded domestic newsprint production. The world-wide bagasse potential is even more impressive, with some 25 million tons of bagasse resulting annually from the harvesting of the world's sugar crop. Theoretically, if it were economically feasible to utilize all of this bagasse for the manufacture of newsprint, it would immediately result in an increase of more than 100 percent in the total world newsprint supply.

In addition to developing new sources of raw materials for the manufacture of newsprint, additional capacity can also be based upon our existing forest potential. Intensive management of existing forests could support further newsprint production, as could the forests now lying idle in the Territory of Alaska. It is by now a foregone conclusion that a pulp and paper industry will eventually emerge in the Territory. To accelerate its development and to assure that a substantial portion of its production will be devoted to newsprint should be the immediate goals of those interested in the increased production of newsprint.

To assure adequate supplies of newsprint in the future will require a program of united efforts on a broad front. Industry can assist by taking advantage of technological innovations and discoveries which can expand the capacity of existing facilities or which make practical the erection of new facilities. Government can assist private enterprise by making available to business the latest information with respect to new processes, new techniques, and new sources for newsprint. It can also reduce the impact of high construction costs and tax rates by granting accelerated tax amortization privileges to new or expanded facilities.

Congress can be of particular assistance in providing the initiative as well as the encouragement for scientific advancement, new inventions, and the full utilization of existing resources for newsprint production. While criticism will avail us little, a constructive program with wide horizons can do much to provide an abundant supply of newsprint at reasonable prices for all purchasers in the future.

The specific recommendations of the subcommittee are as follows:

I. Continuing Program for Newsprint Development

A. COMMITTEE ON THE JUDICIARY

The committee's work in the field of newsprint has resulted in some of the most important and significant developments to come from over a decade of congressional studies and investigations in this area of the economy. Its joint program with the Department of Commerce to expand newsprint productive capacity has been an affirmative approach to a problem which has generally evoked criticism instead of constructive assistance. The committee's efforts have represented a positive contribution toward stimulating private investment and new competition in an industry which has been frequently characterized as noncompetitive.

The subcommittee recommends that the committee continue its efforts in the field of newsprint. It recommends that the committee coordinate and supervise the completion of the work already under way with respect to newsprint and that it see to it that the recommendations contained in this report are carried to their conclusion. The continuation of the committee's efforts toward promoting additional competition and production in the field of newsprint can be effectuated on the same constructive basis as in the past without any special appropriations from the Congress and without travel or other special expenses on the part of the committee. Accordingly, advantage should be taken of this excellent opportunity to stimulate competitive enterprise in the newsprint industry and, at the same time, augment our newsprint supplies.

B. EXECUTIVE AGENCIES

The importance to the United States of assuring adequate supplies of newsprint has been incisively stated by President Eisenhower in the following terms:

> It is my firm view that nothing is more important to the collective security efforts in which we are engaged than an enlightened public, alert to the dangers we face and fully understanding the issues involved in the "cold war." The printed word is a vital link in the chain which united free peoples in our common cause. It is moreover, a potent force in our campaign to place the truth before the captive peoples behind the Iron Curtain. This whole concept presumes a heavy reliance on various media in advancing the cause of democracy. A continuing supply of newsprint adequate to fulfill the needs of the press, not only in the United States but in free areas all over the world, is of the greatest importance in this process. * * * I would even go further and label it as one of our most potent weapons.

The subcommittee agrees wholeheartedly with this clear-cut appraisal of the national and international significance of newsprint.

The problem of assuring a continually increasing flow of newsprint to meet constantly growing demands is one of major proportions. It can be resolved successfully only by mobilizing the combined resources and talents of all executive agencies which are experienced in this field, including the Department of Commerce, the Department of Agriculture, the Department of State, the Department of the Interior, and the Mutual Security Agency, as well as others.

In order to focus more effectively the efforts of the various Government agencies in this regard, methods must be adopted for synthesizing and coordinating their activities. The subcommittee recommends that this be accomplished in the following two ways:

(1) An Interagency Committee on Newsprint should be established for the purpose of integrating activities necessary for carrying out the recommendations contained herein.

(2) The Department of Commerce should continue to exercise the central responsibility in the executive department of the Government for achieving expanded newsprint production. It should chair and coordinate the activities of the Interagency Committee on Newsprint and should have primary responsibility for seeing that the recommendations contained in this report are carried out.

II. Continuing Studies of New Sources of Raw Material

A. ALASKA

It is generally recognized that newsprint production in Alaska on a large scale will eventually be realized. But whether such production will occur within the foreseeable future or not until the lapse of many years cannot be presently ascertained. It is obvious, however, that at the moment the development of newsprint production in Alaska has hit an impasse. This impasse must be broken by positive action and the employment of vision and imagination.

The subcommittee therefore recommends that the Department of Commerce in the report it has undertaken to do for the committee on Alaska include a study of all economic and technical factors, including transportation and other conditions which are impeding the utilization of the forest resources of the Territory of Alaska for the manufacture of newsprint.

In conjunction therewith, the Department should prepare a blueprint for a newsprint industry in Alaska on an economic, self-sustaining basis financed by private capital. Such blueprint should indicate how each of the specific obstacles disclosed in the economic study of the Territory can be minimized or overcome.

B. DEINKING

The possibility of deinking waste papers and thereby opening up a vast new supply of raw materials for the manufacture of newsprint has long intrigued the imagination of those familiar with the problems of increasing newsprint production. It has often seemed that we were on the precipice of a new technology which would open up this source of supply, but each time the great expectations held out for such a development never materialized.

We can, however, profit by the mistakes of the past. The mill which recently produced deinked newsprint in Gary, Ind., is no longer in production. Since substantial sums of Government money were invested in this enterprise it is doubly important to ascertain the reasons for its failure so that the same errors may not be repeated. In its study of deinking for the committee, the Department of Commerce should therefore include an analysis of the basic reasons for the failure of the Gary mill, so as to determine whether its demise was due to excessive production costs, inefficient or unsuitable deinking processes, or a combination of these and/or other factors.

Other efforts are necessary to overcome the obstacles to successful deinking of waste newspapers. There are a number of basic problems involved to which attention must be directed. They include:

(1) The development of a successful process which will deink without damaging the paper fibers.

(2) The development of an ink which is technically equal to and as economic as standard as well as newly developed inks, but which can be deinked more readily than such inks.

In order to resolve these problems, the subcommittee recommends that the Department of Commerce should organize a cooperative industry research program which would combine technological competence in the field of inks, the field of paper production, and the field

of newspaper operation to attack from all sides the knotty problem of successful deinking. Reports on the progress of such a cooperative industry research program should be furnished to the Committee on the Judiciary as completed.

C. HARDWOODS

The Department of Commerce is engaged in a study of great significance involving the use of hardwoods to supply the raw material for a large-scale expansion of newsprint production in the United States. This study had its inception as part of the broad program undertaken by the Department of Commerce during the summer of 1952 for the development of new sources of newsprint raw materials. The study will cover the latest technological developments in hardwoods utilization in Europe and the United States. A basic objective of the study is to determine the technical and economic feasibility of establishing newsprint mills using such new technologies at various specific locations in the United States. Another major aspect of the study involves the determination of the practicability of cultivating particular hardwood species on available lands on a sustained yield basis to provide abundant raw materials for such mills.

While a beginning has already been made in the United States in the utilization of hardwoods, the full potentialties of this source of raw material for newsprint have hardly been tapped. The Commerce Department project has evoked the strongest interest on the part of congressional committees, private industrial companies, research organizations, newspaper publishers, and regional groups. The subcommittee believes that this report will constitute a major contribution to the development of a new industry in the United States. The subcommittee therefore recommends that the Department of Commerce complete this study as promptly as possible, with the same excellent quality and thorough documentation which characterized the study previously submitted to the Committee on the Judiciary on bagasse.

D. BAGASSE

Because of its familiarity with the subject and its successful studies and investigations relating to the conversion of bagasse into newsprint, the Department of Commerce should continue its studies with respect to newsprint made from bagasse and should report to the Committee on the Judiciary the latest developments in bagasse newsprint throughout the world, including such countries as Cuba, India, Brazil, and other major sugar-producing nations. The Department should also report on the significant trends with respect to bagasse newsprint development in the United States and its Territories, including the progress of the new mill being erected by Valentine Pulp & Paper Co. in Louisiana, and the cooperative project of Crown-Zellerbach and the Hawaiian Sugar Planters' Association. The Department should also conduct tests utilizing such new processes for the conversion of bagasse into newsprint as were not studied previously, and submit comparable reports to the committee as to the suitability of such processes for the manufacture of newsprint paper.

The subcommittee further recommends that the Department of Commerce should also expand its studies pertaining to bagasse so as to embrace the production of other related pulp and paper products. The ability to diversify production would undoubtedly encourage the

erection of more economical mills which could turn out newsprint along with other products manufactured from bagasse. Studies should be made and reports rendered thereon as to the feasibility of producing dissolving pulp for rayon from bagasse, manufacturing nitrating pulp for explosives from bagasse, converting bagasse into other pulp and paper products, and the use of bagasse in plastics.

E. OTHER RAW MATERIALS

The Department of Commerce should also continue its studies as outlined in its first progress report to the subcommittee with respect to other new raw materials in the manufacture of newsprint, and report thereon to the Committee on the Judiciary. Studies similar to those made with respect to bagasse should be concluded with regard to such products as wheat straw, saw grass, and other fibrous raw materials. Only after such complete and thorough investigation can it be determined with assurance whether pulps derived from such materials are or are not adequate substitutes for wood pulps in whole or in part in the manufacture of newsprint.

The Department, in this connection, should also undertake a comprehensive survey of fibrous raw materials produced in quantity in the United States to determine the relative economic potentialities of such commodities for possible use in pulps comprising newsprint.

III. Special Surveys

A. BAGASSE SUPPLY

It is also recommended by the subcommittee that the Department of Commerce, in conjunction with other interested Government agencies, undertake a worldwide survey of bagasse supplies which are potentially available on a practical and economic basis for the production of newsprint and related products. Thus it will be possible to assess the actual, as distinguished from theoretical, potential for newsprint and other related products afforded by bagasse.

In connection therewith, the Department should also prepare a study of the economic factors affecting the supply of bagasse, including the availability of the raw material, considerations affecting price, and other economic conditions which prevail in each of the major regions covered in the survey.

B. FOREST SURVEY

The subcommittee recommends also that the Department of Agriculture accelerate and enlarge the scope of its forest survey of the timber resources belong to this country. A realistic program for the expansion of newsprint production is not possible without accurate indicia of the actual and potential forest growth in this country. As of the present moment, information of this type is grossly inadequate. One-fourth of the area of the United States has never been accurately surveyed for timber supplies. Even lands controlled by the Federal Government are not fully appraised for forest resources, as witness the recent statement by the Bureau of Indian Affairs that—

> The lack of accurate information regarding the volume and character of Indian forest resources makes it difficult to determine the extent to which these forests may contribute to the Nation's pulpwood supplies.

It is also important that the forest survey be extended so as to include the timberlands of Alaska where impending developments with regard to newsprint and other pulp and paper products make it imperative that accurate information with respect to the potential for industrial development of an Alaskan pulp and paper industry be readily available. Legislation authorizing the extension of the survey to Alaska has recently been enacted.

C. WASTE NEWSPAPERS

It is further recommended that the Department of Commerce prepare and submit to the Committee on the Judiciary a survey of the economic factors relating to the supply of waste newspapers in the United States. Such a study should include estimates of available supplies in various market areas in the United States, an analysis of the price of waste newspapers over the years, the effect of price fluctuations on available supply, and the amount of such waste papers which are presently being consumed in paper and paperboard production.

IV. Special Economic and Financial Studies

There is a serious gap in our economic knowledge with respect to various aspects of the newsprint industry. Studies purporting to show comparative costs are presently outdated; the existence of certain economic characteristics of the newsprint industry can presently be verified only by hearsay. Furthermore, a number of assumptions regarding economic factors in the production of newsprint cannot now be affirmed or disaffirmed on the basis of available economic data. It is important, therefore, that there be made available up-to-date, reliable economic and financial information respecting various aspects of the newsprint industry.

Accordingly, the subcommittee recommends that the Department of Commerce Industry Division in charge of pulp and paper, the Securities and Exchange Commission, and the Federal Trade Commission jointly prepare and submit to the committee the series of studies outlined in subdivisions A–E below. In this regard, the Pulp and Paper Division of the Department of Commerce can perform an important role in the interests of industry and Government by preparing reliable factual information concerning the operation and structure of the industry needed for the completion of these reports.

A. INVESTMENT COSTS

It is essential, especially for new or potential producers, that full and complete data be prepared with respect to capital requirements for the newsprint industry. Such information should be on a comparative basis so that present costs may be compared with costs of previous years and the long-term picture with regard to each variable can be ascertained. This cost study should include:

(1) Data as to changes in total investment required to enter the newsprint industry.

(2) Data as to changes in construction costs for the erection of newsprint mills.

(3) Data as to changes in the scale of production required for efficient mill operation, and the effect thereof on investment costs.

(4) Data as to changes in the speed of production and the effect thereof on investment costs.

(5) A comparison of investment costs with respect to the erection of new mills as against enlargement or speedup of existing plants.

(6) Effect of the privilege of accelerated amortization on investment in expansion of newsprint capacity.

B. COSTS OF PRODUCTION

A complete analysis of the costs of production for newsprint should be prepared. This analysis should include costs of production for newsprint mills in the United States and Canada, speed of machines as a factor in operating costs, and a comprehensive study of cost trends with specific reference to total costs, wood costs, energy costs, depreciation costs, and profits.

C. RELATIVE PROFIT MARGINS

A study of relative profit margins of newsprint and other products is needed. The only information available relating thereto is long outdated. Such a study should contain a comparison of the relative profitability of newsprint as against the profitability of other pulp and paper products. Comparisons should be made upon varying bases such as profit per ton, percentage on capital investment, etc. A similar comparison with respect to newsprint and other important industries other than pulp and paper should be made to indicate reliably the extent of the financial attractiveness of the production of newsprint.

D. BREAK-EVEN POINTS

New and potential producers in the newsprint industry would find of inestimable benefit an accurate study of break-even points for the manufacture of newsprint, both with respect to plants in existence for many years and plants which have more recently been erected. This information is not presently available and is needed in order to provide a sound economic basis for investment of new capital in the industry.

E. PRICE STRUCTURE

The Office of Transportation of the Department of Commerce recently completed a valuable study entitled Transportation Factors in the Marketing of Newsprint which included an analysis of the extent to which transportation costs are related to the price structure of newsprint. More information is needed in this regard. A detailed study of cost-price relationships in the newsprint industry is desirable. Such a study should include an analysis of freight absorption in the newsprint industry, as well as a description of the operation of the zone system and the effect thereof on the price of newsprint. A detailed study should also be prepared as to the effect of pricing practices and the price structure upon the establishment of new mills and the expansion of existing mills.

V. Forest Development Program

A. INTEGRATED USE OF FOREST RESOURCES

The integrated use of our natural forests has only recently become recognized as an essential means for attaining the maximum utilization of available wood supplies. Operation of our forests on an integrated basis in the future holds out great promise for conservation of our natural resources and increasing pulp and paper production.

There are two aspects of the problem of integrated forest use. One, based upon using wood wastes left in the forests and wood wastes left in the sawmills, deals with the integration of pulping with cutting and sawmill operations. The other, based upon maximum utilization of existing timber stands, provides for diversified production so as to consume the entire output of a forest within a given area.

With respect to integrated use of our forests, the subcommittee makes the following two recommendations:

(1) The Department of Agriculture should formulate a program for encouraging the integration of sawmill and pulpmill operations, insofar as possible without corporate mergers, so that the wastes in lumber cutting and in sawmill operations can be made use of in woodpulp production. In the Far West, for example, large quantities of Douglas fir wastes presently serve no useful purpose whatever, although it is reliably estimated that from the wastes of sawmills having a total capacity of 800,000 board feet per day, a 200 ton per day kraft mill could be wholly supplied with its wood needs. The program should include plans for promoting greater utilization of wood chips, extension of the use of hydraulic barkers, and research into other factors which would result in the development of greater uses of wood wastes.

(2) The Department of Agriculture should prepare a program for a major form of integrated operation involving the total cutting of various species within a given forest area. Integrated operation and convertibility should be stressed with a view to utilization of all species in a given stand whether suitable as saw timber, plywood, veneer, pulpwood, or wood wastes.

B. GOVERNMENT FOREST MANAGEMENT

With respect to management of our national forest lands, the subcommittee makes the following recommendations:

(1) The Department of Agriculture should immediately undertake a program of intensified management of the national forests in order to make fullest use of our heritage of natural forest growth. Of 80 million acres of commercial forest land in the national forests, only 9 million acres were under intensive management as of 1945. While the latter figure has increased since that time, it nevertheless falls far short of attaining maximum utilization of existing resources. Construction of thousands of miles of access roads is necessary by private operators or by the Government, or by both working in conjunction with one another. This will afford access to untapped timber resources as well as permit the cutting of diseased stands presently serving no useful purpose whatsoever. Millions of acres of lands should be planted and intensification of measures to protect forests against fire, insects, and diseases is absolutely essential.

While the above program will necessitate substantial initial outlays, it will nevertheless result in a financial return to the Government of several times the expenditure in view of the additional resources made available and the increased value thereof. It is estimated that eventually a sustained annual output of 10 billion board feet can be obtained from the national forests by intensified management. Not only will this result in needed conservation of our forest areas, serve to eliminate wasted resources, and protect our forests against the ravages of disease, fire, and pestilence, but it will also place our national forest lands upon an efficient and businesslike footing resulting in increased revenues to the Government as well as added pulp and paper production.

(2) The Department of the Interior should undertake to make available, on a sustained yield basis and consistent with its stewardship over forest areas under its control, the maximum volume of pulpwood possible. A program to effectuate this objective would necessitate the construction of a system of access roads to reach presently inaccessible timber stands, intensive management of all forest lands under the Department's jurisdiction, the replanting of many acres of land presently unproductive, and the employment of an administrative staff. While it is recognized that funds would be required for these purposes, it is highly probable that expenditures will be exceeded by revenues resulting from greater yields, additional production, and increased value of the areas in question. It is therefore in the national interest to place on a sound, efficient, and businesslike basis, the management of those forest lands now supervised by the Department of the Interior.

C. GENERAL FOREST MANAGEMENT

The subcommittee further recommends that the Department of Agriculture prepare a comprehensive study and a program containing effective ways and means of increasing our domestic timber resources and more efficiently utilizing our existing commercial timber stands. Such a study should embrace such matters as private cutting practices, educational aids to private operators, expansion of Federal-private sustained yield units, expansion of advisory and information services, adoption of conservation programs, and other factors related to conservation and improved land management with respect to the growing of timber.

D. REFORESTATION

There exists in the United States a great potentiality for developing new forest resources on the many millions of acres of land throughout the country of marginal or submarginal value for other agricultural or industrial purposes. Considerable territory of this nature exists in the State of New York, in the State of Pennsylvania, and other areas of the Northeast, in the Mississippi Delta region and in the Southeast generally, and lastly in the Lake States where newsprint production has decreased sharply in recent years.

The Department of Agriculture should develop a comprehensive program for the reforestation of the marginal and submarginal lands of the United States, which program should be developed in conjunction with the work being done by the Department of Commerce in

hardwoods, particularly fast-growing types, and with the program previously recommended with respect to integrated use of all forest resources growing in specific forest stands. It is only by synthesizing these separate programs that a comprehensive program for commercial reforestation on an economic basis can be successfully evolved.

VI. Encouragement of Expanded World Supply of Newsprint

The subcommittee believes that it is to the best interests of the United States to encourage the expansion of the world supply of newsprint. The newsprint situation in the United States would be substantially benefited not only by additional production within our borders but by expansion of capacity in Canada and all other countries able to produce newsprint paper and from which we could import necessary supplies, whether such newsprint be manufactured from woodpulp or from any other suitable source of raw material. The United States, therefore, should appropriately stimulate the expansion of newsprint production abroad by private investment. As part of a program to encourage newsprint development in other areas, the subcommittee makes the following two recommendations:

A. TECHNICAL ASSISTANCE

Many countries interested in expanding newsprint production could be greatly assisted by the furnishing of technical assistance on the part of the United States. This applies not only with respect to developing newsprint mills operating with conventional raw materials but to mills which would produce newsprint from new sources of raw material, such as hardwoods and bagasse. Taking bagasse as an illustration, there has been an upsurge of interest and activity in almost every sugar-producing country of the world addressed to the manufacture of newsprint and other products out of this raw material. New projects are being planned in Brazil and other South American nations, and in Cuba, which has the largest bagasse supply in the world. Several million dollars have been raised for a new plant in Cuba, and that country has requested technical assistance from the United States for developing this new industry.

The United States Government is in a position to render great aid to developments in such areas by making available technical knowledge and personnel in line with the stated objectives of United States foreign policy. The subcommittee therefore recommends that the Department of Commerce, as well as other Government agencies called upon to do so, furnish these countries such technical assistance as may be available in order to foster the most rapid development of additional sources of newsprint supply.

B. TARIFF

Since 1911, no duty has been imposed upon newsprint imported into the United States. To be duty-free, however, newsprint must fit the definition of "standard newsprint paper" as established by customs regulations. These regulations require such papers to be produced by combining certain specified portions of ground wood and sulfite or sulfate pulps, which represent the composition of newsprint in general use at the time the duty-free provisions were enacted

into law. Newsprint produced from bagasse does not fall within this definition of standard newsprint paper.

Legislation providing for the duty-free import of newsprint produced in whole or in part from bagasse would be consonant with the policy enunciated by Congress for over 40 years that paper entering the country for use in printing newspapers shall be exempted from tariff imposts. It would also offer positive encouragement to the construction of newsprint mills in areas where there is a large annual harvest of bagasse as it would give assurance that bagasse newsprint would have equal access with other newsprint papers to the largest newsprint-consuming market in the world. Legislation should therefore be promptly passed by Congress permitting the import, duty-free, of newsprint made entirely from bagasse pulp or from bagasse pulp in combination with other pulps.

VII. Miscellaneous Recommendations

A. GOVERNMENT RESEARCH LABORATORIES

It is to the national interest and to the interest of private industry that Government laboratories doing work in pulp and paper development be equipped with the most modern and up-to-date facilities. At the present time, there is much to be done in this regard. In the case of the pilot paper mill of the National Bureau of Standards, for example, its successful experiments with bagasse newsprint are more a tribute to the ingenuity and perseverance of the staff than a reflection of the efficiency of the equipment and facilities available for pulp and paper production.

Unless Government pulp and paper research facilities such as are contained in the Bureau of Standards, the Forest Products Laboratory of the Forest Service at Madison, Wis., and the Northern Regional Research Laboratory of the Bureau of Agricultural and Industrial Chemistry at Peoria, Ill., are modernized with the most up-to-date equipment, their contribution to the Government as well as to private industry will be far less than it should be.

In view of the above, the subcommittee recommends that the Government pulp and paper laboratories referred to above be refurbished. The subcommittee believes that private industry can perhaps offer the most constructive suggestions as to the best methods for attaining this objective.

B. GOVERNMENT PRINTING OFFICE

Under section 303 (a) of the Defense Production Act, the President may provide for Government contracts for the purchase of needed materials for Government use or resale, other provisions of law notwithstanding. Newsprint has already been recognized as a commodity essential for defense, and this recognition has had the explicit approval of Congress when it authorized the granting of defense loans under section 302 of the Defense Production Act for the expansion of capacity to produce newsprint. Accordingly, the General Services Administration, in conjunction with the Government Printing Office, should offer to enter into negotiations for the purchase of bagasse newsprint to meet a substantial portion of Government newsprint requirements at a price no higher than the prevailing market price,

provided the product supplied is acceptable in every respect for satisfactory printing of Government publications.

Such a purchase commitment would provide financial as well as moral encouragement to those pioneering in a new industry, while safeguarding the Government in all respects. The Government Printing Office has consistently been among the first to feel the impact of recurring newsprint shortages. It is therefore in the interest of the Government as a buyer to promote new competitive sources of newsprint by adopting this recommendation. The Government would be affording the same type of affirmative encouragement to new private investment in newsprint manufacture which has proved effective in inducing the investment of private funds in the expansion of other industries essential to national defense.

C. REGISTRATION OF SECURITIES

Appropriate committees of Congress should consider legislation permitting the Securities and Exchange Commission to require the registration with it of unlisted securities, in order that essential information may be available with respect to newsprint companies, as well as other important concerns, that are incorporated outside the United States.

D. ACCELERATED TAX AMORTIZATION

The privilege of accelerated tax amortization is of special significance in the newsprint industry in view of the present high capital costs for the erection of new mills. In order that new mills may remain competitive with mills already erected or mills to be built under the presently authorized expansion goal, it is essential that the writeoff privilege which has been accorded newsprint expansion projects be continued.

The defense expansion goal for newsprint, as for other materials, determines the amount of new capacity for which accelerated tax amortization may be granted. Additional capacity for newsprint in the United States is needed to meet steadily rising demands and to safeguard against recurring shortages. It would be against the best national interests to discourage further expansion of newsprint merely because a productive level determined on a necessarily arbitrary basis had been reached. Inasmuch as certificates already granted account for the entire expansion goal as presently established, it is recommended by the subcommittee that immediate action be taken by the National Production Authority and the Office of Defense Mobilization to revise and expand the newsprint expansion goal. Failure to expand the newsprint goal will not only discourage the erection of new facilities in the United States but will actively discriminate against companies desiring to construct new facilities or enlarge upon existing newsprint capacity.

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